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OUTLINES OF
SCHOOL ADMINISTRATION



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OUTLINES
OF
SCHOOL ADMINISTRATION

BY
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AUTHOR OF "THE MANAGEMENT OF A CITY SCHOOL"
"PROBLEMS OF THE ELEMENTARY SCHOOL," ETC.

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PREFACE

THIS volume is offered with the thought that it may be found acceptable as a textbook in the study of School Administration. Having this use in mind, I have followed a spiral plan involving repeated review of the systems of the various nations treated, instead of one which would dispose of the schools country by country. Even where such a textbook is not needed, I trust that the volume may yet be found of value for reference. I also venture to hope that it will be of interest to the general reader who desires to acquaint himself with the salient features of the schools of our own and other leading nations.

For both general reader and special student, I have endeavored to lighten the subject by judicious handling of the statistical matter. Thus I have not hesitated to translate the exact figures of official reports into "round numbers" or even generalized statements whenever such changes involved no loss of substantial accuracy.

My indebtedness to those who have written at length on the many specific topics which this book groups together and aims to unify is readily seen from the liberal use of the quotation mark. I have quoted, not only in order to place the particular citations before the reader, but also to direct his attention to the bibliography of the subject and to tempt him to further study.

In this connection I must express my appreciation of the services of those who, in the libraries of this city, have patiently aided me in my own quest for material. More particularly am I indebted to Dr. C. C. Williamson, in charge of the economics collection of the New York Public Library, and to Miss Mary J. Thackray and her corps of gracious associates at the Saratoga Branch of the Brooklyn Public Library. Finally, for wise counsel and effective assistance, generously given, I desire to thank Dr. Gustave Straubenmüller, Associate Superintendent of Schools, New York, and Miss Mabel W. Haines and Miss Mabel F. Jones, both of Public School Eighty-five, Brooklyn.

ARTHUR C. PERRY, JR.

BROOKLYN, NEW YORK,
November, 1911.

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OUTLINES OF
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SCHOOL ADMINISTRATION

CHAPTER I

INTRODUCTION

"As music is not a matter of strings or keys or instruments, and as true oratory does not depend upon the language or color of the orator, so administration is not a matter of forms or method. In its higher sense, it is an atmosphere, an enfolding and life-giving power, which, consciously and unconsciously, acts upon and sways every one within its field of action, and nerves him to do the best that is in him for the common cause." — BIRDSEYE, "The Reorganization of our Colleges," p. 165.

PROFESSOR HORNE, in his valuable "Philosophy of Education,"¹ shows that "there are four points of view from which the study of education, in the narrow sense of the term, may be profitably undertaken. Education has a history, an ideal, a practice, and a philosophy." For him the "practice of education" presents three practical problems: (1) how to organize a school or a school system; (2) how to manage, in which the question of discipline is uppermost; and (3) how

¹ Macmillan, 1904, pp. 7 *et seq.*

to supervise. Without giving unqualified assent to this threefold subdivision, it may be said, in general, that it is this practice of education, as distinguished from the other three phases, that constitutes the scope of this volume. Although there is a certain interdependence of the four phases, shown for instance by the fact that the character of the practice of education depends very largely upon the educational ideal, the general term School Administration is here used to encompass all the formal and official relationships which the pupil sustains toward those interested in his education.

In America, the trend toward centralization in the various departments of human progress has been particularly accentuated and accelerated in recent years. Population has drifted into great centers, so that a bird's-eye view of our country must remind one of our experiment in physics which shows the congregation of iron filings about magnetic poles, the fact being that to-day about one third of our population is urban.¹ We

¹ To be exact, in 1900, for the United States, 32.4 per cent, varying greatly by states, from 91.6, Rhode Island; 86.9, Massachusetts; 71.2, New York; 67.5, New Jersey, to 5.3, Mississippi; 5.0, Oklahoma.

may not overlook the fact that there are potent influences already urging the tide of migration countryward, — or at least suburbanward, — and it is possible that a century hence school organization, like all other political organizations, will, on this account, take on quite a different form. This, however, is but speculation, and we concern ourselves with the present facts. Politically, centralization has steadily progressed since the Civil War, with federal powers strengthened, executive departments successfully assertive, and the principle of concentration of authority advanced all along the line. Industrially, also, we note that the compact corporation or “trust” is the prevailing form of organization. It is not surprising therefore to see that, educationally, our schools are fast giving place to our school systems, and School Administration has emerged as one of our educational problems.

With this development of the problem itself there has been a corresponding development in the study of the problem and in the bibliography which both results from and helps to guide that study. School Administration as a subject of study is an extremely modern one. As late as

1875 we find Professor Payne, in his "Chapters on School Administration," devoting space to the "nature and value of superintendence" and "the art of grading schools." The necessity for school supervision was subject to discussion, the plea for scientific direction of schools was on the defensive, and the graded school was scarcely more than an experiment. Even in 1881, Dr. Baldwin gave but one chapter of the ten in his "Art of School Management" to the graded school. It was not until 1903 that educational bibliography recognized the distinction between school and class, which it did then by the publication of Superintendent Taylor's modest volume entitled "The Art of Class Management." Since then, this distinction has been emphasized by some half-dozen writers,¹ and we may confidently assume that henceforth it will never be forgotten in any discussion of schools and school systems. We had to wait until 1904 for our first published volume recognizing the modern problems of School Administration in the large, when Super-

¹ For instance: Bagley, "Classroom Management"; Perry, "The Management of a City School"; Arnold, "School and Class Management"; Chancellor, "Class Teaching and Management."

intendent Chancellor gave us his "Our Schools — Their Administration and Supervision."

Even to-day a glance at the courses of instruction in the educational departments of our leading universities shows how loose is the use of terms in the treatment of this subject of the "practice" of education. It is the aim of this book more definitely to fix the content of these terms, and it is the hope of the author that his classification may meet favorable recognition.

CHAPTER II

EDUCATION AND SCHOOLING

"We are now engaged in the most stupendous educational, social, and economic experiment the world has ever undertaken — the experiment of universal education; and whether in the end universal education shall prove a blessing or a curse to us will depend entirely upon our skill in handling the issues it has raised for our solution." — DAVENPORT, "Education for Efficiency," p. 13.

THE word *education* is an extremely elastic one and may be stretched to the verge of becoming a synonym for change or growth. The earliest modification of the growing biologic cell is in the broadest sense an educational progress. The subsequent and continued modifications which in their total we call evolution constitute an educational process. The constant influence of its environment upon any living organism and the consequent adjustment of that organism to its environment is a process of education. In this sense is the brute educated; his environment develops in him, through successive generations, a large series of necessary adjustments which

become his stock of fundamental instincts. When these instincts are operative, the fox, for example, is educated, in the fox sense; when they are defective, he is uneducated, and fails as a fox. Throughout the whole gamut of subhuman species, this education is unconsciously received and unconsciously given — there is no education in the sense of schooling, unless we speak figuratively and give Dame Nature the title of School Mistress to the Universe.

But when we consider the human species, we note that a change has come over this educational process. Dame Nature is still at work with her adjustment-compelling environment and her curriculum of instincts; but for Man, education means more than mere submission to the battering of environmental forces. The individual has become a member of a social group; he is not merely a detached specimen of his species, but he is also a *socius*, a unit in society. He is subject not only to the laws imposed by Nature directly upon individual man, but also to those which govern the *socii* in his collective group. Through countless generations humanity has been accumulating for him a stock of

knowledge with which he must overlay his primal instincts. Acquisition from this stock is now a necessary part of his education, and his education is now received, not from Nature directly, but at the hands of the very humanity which is responsible for the accumulation of the educational material. Even yet, however, education may not reach the schooling stage. The savage, though in large measure ruled by instincts, is yet the creature of his social environment, and must receive an educational impress which shall carry him beyond his instincts. This education he gains through constant attrition with his fellow-socii, wherein there may be but little of formal schooling. Were he first to come to consciousness alone on a desert island, his life would be but little more than that of the brute, and his education little more than the unwrapping of his bundle of instincts. But among his fellows he is influenced by the accumulated habits, traditions, and wisdom of the tribe, and he must acquire this store of mental equipment or fail of recognition as a member of his social group.

Modern society, with its more complex structure and its more intelligent appreciation of the

needs of mankind, has developed the institution of the school. The school is an organization through which the individual is subjected to an artificial environment in order that he may the most economically and expeditiously accomplish adjustment. Instead of leaving him to happen haphazard upon the experiences which shall serve to educate him, the school deliberately creates artificial experiences and systematically trains him to meet them. Thus not only is he saved the immense loss of time which he would sustain in hit-or-miss acquisition, but further he is early qualified to take his turn in rendering social service to his fellows.

The creation of the school by civilized society has resulted from the recognition of the need of the institution, together with the development of the desire to meet this need. We have, then, in passing, to note first the factors which contributed to make the school necessary, and secondly the growth of the sentiment which urged society to create the school.

As to the first, society has formed many institutions, — the State, Business, Property, etc., — and each imposes upon the individual member

of society the necessity of acquiring its own institutional group of knowledge. His brute instincts may serve him well enough for the lowest plane of self-preservation, but he can find no place as a part of the State unless he understands the State, he cannot profit from business unless he is versed in business, he can neither hold property himself nor respect the property of others unless he has learned the rules concerning property. For any satisfactory existence, he must be educated along these new lines, these lines of civilization. Moreover, mankind has invented an oral and written machinery for facilitating intercourse and for the transmission of the racial records from one generation to another. Individual man, if he is to have any material share in the benefits of civilization, must acquire the art of facile manipulation of this machinery.

As to the second, while institutions have been developing, there has taken place a remarkable transition in human sentiment. We can in no wise leave out of account the phenomenon of the decline of egoism and the ascent of altruism. Altruism is the great paradox of Nature. Gradually, through the lengthening period of infancy,

man found himself under the necessity of devoting more and more of his thought to the protection of others. From realization of his responsibility for the welfare of his dependent offspring it was a natural transition to consideration for the rights of those outside his immediate family. To-day we see men everywhere voluntarily assuming some measure of responsibility for their less fortunate fellow-men. This principle of altruism is clearly recognized in modern thought and action. And herein lies the paradox: in evolving altruism Nature seems to have worked out the destruction of her own method.

In the mists of the past man emerged from the subhuman species by virtue of Nature's method of the survival of the fittest. One result of man's development is the appearance of this sentiment of altruism, which in its very essence tends to interfere with the ancient law of the survival of the fittest. For example, in the jungle, the leopard who breaks his leg drops by the wayside and is trampled on by his fellows. Thus is the breed of leopards improved through the elimination of those who are careless as to their own physical protection. But with humanity, the man who

drinks himself into the gutter is lifted up by his altruistic fellows, set upon his feet, and although physically and morally "unfit" is aided to survive and to perpetuate his unfitness in the person of his descendants. Unless we can discern a hope by way of the still youthful science of eugenics, the self-inflicted doom of the race would seem inevitable. This, however, is aside from the main issue, which is to recognize the relation of altruism to education.

Thus we see that one result of the rise of the social institutions and the advance of the sentiment of altruism has been the development of the special institution which we call the school. Moreover, as each social group has developed its institutions along lines peculiar to itself and has developed the altruistic sentiment to a distinctive degree, it follows that the resultant schools assume a characteristic form which is dependent upon these two factors. The form of education provided by the school in any nation is subject to wide variation dependent upon the varying educational ideals in vogue for the given time and place.

Among the many aims which have enlisted ed-

ucational thought and controlled educational policies, some may be noted in particular. The idea of *Utility*, of teaching effectiveness in "making a living," has had persistent hold since before the days of ancient Rome. To acquire *Knowledge* for the sake of knowledge, for the joy of acquisition and the pride of possession, to amass facts, has appealed to many whose bent is toward classification and science. To achieve *Culture*, to become the cultivated scholar, to know and to be all that a "perfect gentleman" should know and should be, has been the ambition equally of the ancient Greek and the modern Oxonian. To pursue education for the sake of mental *Discipline*, regarding the subject matter of small account, provided only that the mind as a whole is being forged into an effective tool, has been the ideal held forth by those committed to the doctrine of formal discipline. The theory of *Harmonious Development*, based upon the assumption of the existence of mental "faculties" and the desirability of training them all with equal diligence, has captivated the vision of Plato and Rousseau and Froebel and a host of others. The formation of *Character*, the development of the will, and the subjection of the man

to habits of self-control, has been held as the great essential by Aristotle of old and the Herbartians of new. The thought of education as *Adjustment* to environment has been brought to the front by modern science. *Social Efficiency*, as an end and aim of education, has followed the awakening of men to their social responsibilities. The vision of *Soul Liberalization* has appeared to those who see in education "nothing but religion enlightened and energized, but always and essentially the religion of the faith that all are the sons of God, and that as long as he lives, even the worst may be redeemed."¹

Throughout these different ideals we note the conflict between the interest of the individual and that of society. The question whether Man exists for the State or the State for Man has been answered divergently throughout historic time and geographic space. Shall the man educate himself that the State may endure or shall the State educate man that he may prosper? In the history of education we note these two opposing aims dependent in turn upon the opposing conception of

¹ William E. Chancellor, "A Theory of Motives, Ideals, and Values," Houghton, Mifflin, 1907, p. 111.

the State. In Oriental education, typified by the Chinese system, we have seen a definite and formal purpose — instruction in the minutiae of the Confucian portfolio of authoritative social and ethical regulations — result in the development of the State as a collection of individuals in themselves unimportant. By contrast, in the old Greek education, constant throughout the varying theories and practices, from Homeric heroics to the cultural capture of Rome, from Spartan virtue of courage to Athenian worship of beauty, from the idealism of Plato to the practicalism of Aristotle, the emphasis was put upon the development of the individual as a dignified and integral member of the State.

CHAPTER III

THE STATE AND EDUCATION

"The State is the organic body of society; without it society would be hardly more than a mere abstraction. If the name had not been restricted to a single, narrow, extreme, and radically mistaken class of thinkers, we ought all to regard ourselves and to act as *Socialists*, believers in the wholesomeness and beneficence of the body politic. If the history of society proves anything, it proves the absolute naturalness of government, its rootage in the nature of man, its origin in kinship, and its identification with all that makes man superior to the brute creation." — WOODROW WILSON, "The State," p. 631.

"It is statistically true that enough of knowledge to be of value in increasing the amount and quality of work done, to give character, to some extent at least, to a person's tastes and aspirations, is a better safeguard against the inroads of crime than any code of criminal laws." — CARROLL D. WRIGHT.

THE modern State assumes much on behalf of the education of the individual. In the United States, in France, in Germany, and in many other nations, a very small proportion of the pupil enrollment is to be found in the private schools.

The introduction of the State as the supporter and regulator of the institution of the school measurably modifies the consideration of educa-

tional ideals and aims. The education which the individual may provide for himself and his own may be quite different from that which he may properly demand from the State or that which the State may concede to him. To word it more concretely, I, paying the bills myself, may educate my son in accordance with the most ideal purpose and ambitious program; whereas, to demand that my neighbors, constituting the State, shall provide this education at the common expense, would be ridiculously unreasonable. On the other hand, I may be quite careless and indifferent as to my child's education and fail to make any provision therefor whatever; in which case my neighbors, the State, for reasons of their own may take the matter entirely out of my hands.

At this point it must be made clear that public education is not a *right* but a privilege. The individual has no inherent right to education at the expense of his fellows. The Declaration of Independence, for instance, cites as the "certain unalienable rights," "life, liberty, and the pursuit of happiness," but nothing is said of the right to an education. The constitution of the State of New York, typical of the organic law of all the

States, reads, "The Legislature shall provide for the maintenance and support of a system of free, common schools, wherein all the children of this State may be educated." (Article IX, Section 1.) This is quite different from what would be implied were the section to read: "The natural rights of the children of this State to an education shall nowhere be violated." Society, through its organized institution, the State, using the governmental machinery of the State, decides what privileges it is wise for the State to grant to its individual members. Among the privileges are included citizenship, the franchise, and this matter of education. Different societies, different States, measure these privileges differently. For example, all the States of the United States grant the franchise to male citizens above the age of 21; in most of Germany the privilege is granted to the male citizen only after he reaches the age of 25. It is evident that there is no special natural and inherent virtue in either the age 21 or the age 25. There is nothing in the age of 21 which gives the possessor the *right* to demand franchise. Some societies decide that the interests of their State are best served by

permitting their voters to exercise the privilege at that age, others decide that the State interest demands the withholding of that privilege until a more mature age is reached. So it is in the matter of education: one society extends the privilege far in both directions — downward to the kindergarten and upward to the university — while another limits it to much less. Moreover, most States are not content with offering the privilege of education, but find it wise and expedient to compel the acceptance of a certain measure of education.

Let us examine into the justification for public education. Why should society concern itself with the education of its members? Perhaps the broadest answer to this question is that society recognizes the general obligation which the altruistic philosophy places upon it and realizes that this obligation can best be met by its existing institution, the State.¹ "The State *must* because the State alone can; the State has the right be-

¹ "It could probably be shown that those nations in which the altruistic tendencies are the strongest and at the same time the most rational are in the most stable condition, and give promise of retaining their vigor the longest." — M. V. O'Shea, "Social Development and Education," Houghton, Mifflin, 1909, p. 240.

cause the State is what it is — the only measure of public judgment, the only standard of reason actually attained and objectified,"¹ or as Governor Wilson puts it, "no instrumentality less universal in its power and authority can secure popular education."²

Secondly, society recognizes the necessity for the conservation of the institutions which it has so laboriously constructed for the preservation of the racial and national traditions which make for political stability.³ In the words of Professor O'Shea, "a nation of alert minds will discern the forces that threaten degeneration in the national life, and they should be able to control them; but the *majority of the people* must be trained so that

¹ G. H. Howison, *Educational Review*, May, 1893, p. 430.

² Woodrow Wilson, "The State," Heath, 1904, p. 638. Cf. William E. Chancellor, "A Theory of Motives, Ideals, and Values in Education," Houghton, Mifflin, 1907, Chap. 2, advocating the organization of the educational institution independently of the State.

³ "It would seem safe to say that the more liberally a people is educated and the more generally education is diffused among the whole mass, the more will happiness abound and the more secure and effective will be the governmental organization. It would also seem safe to say that some education, and that generally diffused, is imperatively essential to the life of a well-ordered State, competent to promote the ends for which it exists." — Andrew S. Draper, *Educational Review*, Vol. I, p. 27.

they can discern these forces and appreciate whither they tend. A nation cannot be saved by the enlightenment of the few; the attitude and appreciation of the majority, after all, determine the fate of a nation.”¹

Thirdly and more specifically, we might say more egoistically, society recognizes that the preservation of the State, the control of its members by the State, is more economically and satisfactorily accomplished through education than without it. This last motive is probably the one most clearly recognized by people generally. The average taxpayer, who thinks but little of altruistic philosophy or the conservation of traditions, can well understand that his safety, in the police sense, is enhanced by the spread of education. He pays his tax for the education of his neighbor's children with a degree of cheerfulness because he realizes that it is a form of protective insurance—he much prefers, if he must live in the neighborhood of those children, both now and when they have grown up, that they should be law-abiding and intelligent, and generally agreeable to meet. “Humanity,” says

¹ *Op. cit.*, p. 238.

President Thwing, "is learning that it is better economy to devote the larger share of its revenue to the education of children than to expend it for the care of the criminal, the defective, and the pauper through a score of years."¹ Putting it very practically and most brusquely, it is far less expensive to educate a child than it is to jail him.

Society protects itself through Education by developing two distinct phases of its relation to the schools, which may be called the opportunity phase and the compulsory phase. The safety of the State depends on the one hand upon the continued development of capable and specially equipped leaders; on the other, upon the maintenance of the mass of the people at a satisfactorily high level of intelligence. The former demand results in the extension of the *privilege* of education; the latter, in the imposition of the *duty* of education.

The degree to which this privilege is extended and this duty imposed varies considerably in the different social groups, and it is part of the study

¹ Charles F. Thwing, "College Administration," Century, 1900, p. 13.

of School Administration to note this variation. We may term this variable, the Norm of Public Education. This norm is expressed for any community by the degree of public education provided between a maximum of opportunity and a minimum of compulsion. Each of these, the maximum and the minimum, has its upper and lower limits. Concretely, for example, the norm for a given State may lie between a maximum of opportunity extending from free kindergartens to free universities, and a minimum of compulsion of six years of elementary grade schooling. This is to say, that every one of its members *must* have six years schooling and *may* have, at public expense, a liberal education extending over many years from infancy to maturity.

To carry out the purpose of society in regard to education, the State is obliged to work through a large number of agencies and agents. President Garfield pictured a liberal education as a student on one end of a log and Mark Hopkins on the other. This may well serve as the type of ideal schooling, but in actual practice it is found that we have altogether too many students and too few Mark Hopkinses to permit of putting this

ideal into effect as a system of public education. The modern State has already discovered that only by the organization of its schools into some form of system can its purpose in regard to education approach fulfillment. The result has been the development of a somewhat complicated series of administrative offices with corresponding administrative responsibilities.

The primary unit of administration is the class, the grouping of pupils under the authority of the teacher. Between the teacher and the State there are several agents necessary. The State puts the matter of education into the charge of School Boards, Boards of Education, etc., who direct educational affairs in accordance with the will of the society which they represent. They, in turn, transfer the actual supervision of the schools to the professional superintendents. Between the superintendent and the teacher there is need, in all places where population centers, for an intermediary in the person of the head teacher or principal, as he is usually known in America.

It is not to be forgotten that the center of interest in any system is the child, and that the

principle of service is the only one which can justifiably animate any system. The teacher holds his position in the service of the pupil; the function of the principal is to serve the teacher in his service to pupils; and the function of the superintendent is to serve the principal in his service to teachers.¹

To administer is to manage or to conduct. Hence School Administration concerns all the relationships between the pupil and those who serve him. This includes, successively, as we go from the State to the pupil: School Organization, School Direction, School Supervision, School Management, and Class Management.

School Organization concerns the broad administration of the schools by the State. It is the purpose of the State as it finds expression in the structure and work of the school. (To organize = to give an organic structure, form, order, life, to.)

School Direction concerns the administration of the schools by the official bodies created by

¹ See brief study of interrelationships of the school officers, the teachers, the pupils, and the community, in John Sogard, "Public School Relationships," Hinds, Noble, and Eldredge, 1909.

the State for this purpose. (To direct = to cause to take a certain course.)

School Supervision concerns the administration of the schools by the professional supervisors—the school superintendents, commissioners, etc. It marks the transfer of authority from the lay to the professional bodies. (To supervise = to oversee, to inspect with authority.)

School Management concerns the administration of a school by its head, the principal, director, etc. (To manage = to guide by delicate or careful treatment.)

Class Management concerns the administration of a class by its teacher.

The study of School Administration, therefore, comprises the study of each and all of these five administrative relationships, in pursuing which we consider in turn, as occupying the center of attention, the State, the School Board, the School Superintendent, the Principal, and the Teacher.

Four countries—Germany, France, England, and the United States—are at once educationally preëminent and also typical of the chief variations in these different departments of School Administration, and so it is these which merit the

largest measure of consideration. The organization of the schools as we find it to-day in any nation crystallizes the history of education in that nation and can be fully apprehended only by a sympathetic understanding of the traditions and political history of the people it serves.¹ For, as Chancellor Brown puts it, "Education in a special sense not only springs from the people, but in turn creates the people from which it springs. Education is its own father."²

Germany and the United States, though under strikingly different forms of government, are yet alike in that each is a federation of States,—of kingdoms and other political units in Germany, of republics in America. The result is a distinct nonfederalization of school direction in both countries and a consequent organization of schools as State and not national systems. By

¹ Except that, "as in the development of living organisms, parts and organs persist which are no longer useful and are sometimes inconvenient and even harmful to the individual, so in educational systems customs and forms of organization prevail which were well adapted to primitive conditions, but are inconvenient and injurious in more highly developed systems."—Frank Rollins, "School Administration in Municipal Governments," Macmillan, 1902, p. 11.

² Elmer E. Brown, "Government by Influence," Longmans, Green, 1910, p. 122.

contrast, the organizing and systematizing genius of the French has welded their schools into a national solidarity under strong centralized direction.

In proceeding now to the first department of school administration, the topic of school organization may best be considered under three sub-heads: first, the organic structure of the school system; secondly, the educational aim as seen in the curriculum; and thirdly, the norm of public education as shown by the degree of opportunity offered and of compulsion imposed.

PART I. SCHOOL ORGANIZATION

A. THE ORGANIC STRUCTURE

CHAPTER IV. PREVIEW

CHAPTER V. THE UNITED STATES

CHAPTER VI. GERMANY

CHAPTER VII. FRANCE

CHAPTER VIII. GREAT BRITAIN AND IRELAND

CHAPTER IX. OTHER COUNTRIES

CHAPTER X. REVIEW

CHAPTER IV

PREVIEW

"In view of the growing dependence of modern states upon science and the arts for the attainment of their political ends, it has been suggested of late that the institutions of education, with the university at their head, may fairly be regarded as a fourth branch of government, coördinate with the executive, the legislative, and the judicial branches. The service which these institutions have to render is so distinctive and so indispensable that this characterization is not wide of the mark." — BROWN, "Government by Influence," p. 20.

A GENERAL classification of schools into groups may readily be made, although more intimate study shows that despite general distinctions there is much variation, especially within the groups, in different countries, and in fact in different parts of the same country. The typical divisions, based chiefly upon the age of the pupils provided for, are: (1) Infant Schools, (2) Elementary Schools, (3) Secondary Schools, (4) Higher Institutions; and as to the character rather than the grade of work done, (5) Vocational Institutions.

The *Infant* schools provide for children too young to be subjected to the stress of the more formal work of the elementary school. In many cases, the chief value, as indeed the chief purpose of these schools, is that they provide an alternative to the education of the street. Especially in congested city districts, the child of two to six whose days are spent in squalid tenements and noisy streets rapidly succumbs to influences sordid, not to say vicious. When he finally reaches the schoolroom, it is with an education of a sad sort already acquired and firmly fixed. Thus is the school seriously handicapped from the outset in its effort to give what it regards as true education. But if it can have at least a few of the daily hours of the child during this period of his infancy, the school obtains a strategic advantage. By this means it has an opportunity to make such an impress upon him as shall counteract the sinister influences of the street and to bring him to his more formal schooling with a valuable preliminary training. In Italy, for instance, the term applied to this grade of school is related to our word *asylum*, in its broader sense of shelter.

Another justification for the infant school is the

fact that in many homes stress of industrial conditions prevents the mother from giving proper care to the young children of the family. She gratefully accepts the relief offered by the school, which is in fact a sort of day nursery. It is this form of infant school which prevails in France, where it is known as the maternal school.

The most modern and progressive form of infant education is the Kindergarten, which aims to be much more than a refuge or a nursery, though it has these values incidentally. The Kindergarten aims to make use of the natural instinct of the child for play and to divert this activity into more orderly and meaningful channels than it would have if left undirected. It aims to put before him certain ideals which he shall come to make his own and which shall become effective motives in his post-Kindergarten days. It aims, too, to create for the child a social environment which shall evoke his appreciation of a cultured social atmosphere. In the Kindergarten he is to learn that he is more than *Ego*. He is to realize that, however fondly his mother may regard him as the only important human unit, he is, as a matter of fact, but a single member of a

large social group. Then his thought and his interests become less self-centered, and he learns something of the social arts and graces.¹ Though of German origin, the greatest strength of the Kindergarten to-day is in the United States.

The *Elementary* school is the traditional vehicle of the "common school" education. It is the "people's school, found wherever the nation has been inspired with the ideal of popular education. Although it is possible, by diligent investigation, to trace the origin of our common schools back into the days of ancient Greece and Rome, it was not before the nineteenth century that the idea of universal education became a reality, first in certain of the states of Germany under the stress of the conquest by Napoleon, later in certain of the United States of America, in France, and in England."²

The elementary school of the present day necessarily exists in two well-defined types, the rural and the urban. In rural communities, where population is scattered and a large area

¹ On misinterpretation of the Kindergarten spirit, see author's "Problems of the Elementary School," Appleton, 1910, p. 71.

² Lewis F. Anderson, "History of Common School Education," Holt, 1909, p. 275.

must be traversed in order to secure a score or two of pupils, it follows that the school unit can consist of but a single class. But where population centers develop, it is possible—indeed, necessary—to gather several hundreds of pupils into a single building. This permits the grouping of pupils into grades and the organization of the school into a number of classes.

Perhaps the more significant trend in regard to this grade of school is its tendency to extend its influence to *all* children. There are many unfortunates whose physical and mental shortcomings preclude their proper instruction in classes of normal pupils. In the past these have been ignored by the schools, and whatever special attention they have received has been at the hands of charitable institutions or private benefaction. To-day there is an awakening to the responsibility of the State toward this group of children, and here and there specific and effective effort is being made in their behalf. Such of them as are admitted to regular school classes remain at a serious cost both to themselves and to the normal children. Their segregation in special classes is demanded, therefore, not only

by their own interest, but by the interest of the school as a whole.

Indeed, some go so far as to say that "it is the normal child who suffers most from contact with the special child who is unable to follow the work of the class. The special child takes more than his share of the attention of the teacher, and, as a matter of fact, the special child does not benefit sufficiently to entitle him to this extra attention. The special class must be a clearing house. To it will not only be sent the slightly blind and partially deaf, but also the incorrigibles, the mental deficients, the cripples."¹

It is necessary that sharp distinction shall be drawn between children whose defect is physical and those whose defect is mental.² For the physically defective there is always the valid hope that he may be educated, despite his defect, to the point of becoming, for all practical purposes, a normal individual and a useful and influential citizen. There are so many instances of men and women totally blind or totally deaf or seriously crippled, who have risen to places of eminence as participants in the world's work, that there is no need to cite any one of them. The boy who, through partial deafness, is losing ground in a class of normal pupils ought in all justice to be withdrawn and given instruction more specially adapted to his needs. The boy who lacks the full use of his hands, so that

¹ Dr. E. R. Johnstone, Superintendent of the School for Feeble-minded Boys and Girls at Vineland, N.J., quoted in Emma Sylvester, "Auxiliary Education," Doubleday, Page, and Co., 1909, p. 204.

² For a discussion and classification of types see William Estabrook Chancellor, "Our City Schools: Their Direction and Management," Heath, 1908, p. 130.

he cannot be trained for the ordinary employments, must be trained in work fitted to his condition. The blind boy must be taught to read and interpret through the special instruments provided for those thus afflicted. But neither the blind nor the deaf nor the crippled are to be regarded in the same light as those suffering from mental defect, although we recognize that weak mentality is usually associated with abnormal physical characteristics of some sort. Although incurable, "the lesser forms of feeble-mindedness may be susceptible of amelioration and of modification, just in proportion as they have been superinduced by causes congenital or accidental."¹

The training given to the feeble-minded has a different purpose from that provided for the physically deficient. "As has been stated by many experts, the defective may often be trained so as to become self-supporting, but he seldom, if ever, becomes self-directing."² It is to be remembered that the average man is not merely self-supporting; he is family supporting. The present-day effort on behalf of the feeble-minded is not to attempt to cure him or, in the ordinary sense, to educate him, but to enable him, as a social unit, to carry, as near as may be, his own weight. This can be done only by making him industrially efficient, so that, under proper direction, he may yield an economic output equivalent to the expense of his maintenance.³

¹ Martin W. Barr, "Mental Defectives: Their History, Treatment, and Training," P. Blakiston's Son and Co., 1904, p. 23.

² Sylvester, *op. cit.*, p. 214. See also p. 264 for bibliography of subject.

³ An investigation made in Germany by Doctor Stelzner as to 200 weak-minded persons not receiving instruction in an auxiliary school, showed that a total of 235 convictions were recorded against them, for begging, larceny, housebreaking, forgery, fraud, assault, and vagrancy.

Dr. Barr classifies the feeble-minded, educationally, as (1) idiots, (2) moral imbeciles, (3) imbeciles, and (4) backward or mentally feeble,¹ and prescribes for the first, asylum care;

¹ His detailed classification is:—

(1)	Idiot	Profound	{ apathetic excitable }	<i>Unimprovable.</i>
		Superficial	{ apathetic excitable }	<i>Improvable in self-help only.</i>
	Idio-imbecile — <i>Improvable in self-help and helpfulness. Trainable in very limited degree to assist others.</i>			
(2)	Moral Imbecile (mentally and morally deficient).	Low grade — temperament bestial.		<i>Trainable in industrial occupations.</i>
		Middle grade — plotter of mischief.		<i>Trainable in industrial occupations.</i>
		High grade — genius for evil.		<i>Trainable in manual and intellectual arts.</i>
(3)	Imbecile (mentally deficient).	Low grade		<i>Trainable in industrial and simplest manual occupations.</i>
		Middle grade		<i>Trainable in manual arts and mental acquirements.</i>
		High grade		<i>Trainable in manual and intellectual arts.</i>

- (4) Backward and Mentally Feeble: mental processes normal but slow and requiring special training and environment to prevent deterioration. Defect imminent under slightest provocation, such as excitement, overstimulation, or illness.

— *Op. cit.*, p. 90.

Also p. 338 for bibliography of Writings of Edward Seguin:

for the second, custodial life and perpetual guardianship ; for the third, long apprenticeship and colony life under protection ; while the fourth, he says, may be trained for a place in the world.

Modern educational systems are hopefully meeting the problem of the training of defectives through segregation, establishing what are known as auxiliary schools or classes. Elementary education therefore is to be studied under two parallel subdivisions: *general* and *auxiliary*.

The *secondary* schools provide instruction advanced beyond that of the elementary curriculum and extending into the realm of what is regarded as a "liberal education." In most countries, however, the secondary schools provide also a preliminary training parallel with that given in the elementary schools. Thus the distinction between the two forms of institution is more than

cretinism and idiocy; mental defectives; surgery of idiocy; epilepsy.

Idiocy is to be distinguished from Imbecility in that the former is a defect of the mind, the latter a weakness of mind. Idiocy is congenital or due to causes operating during the first few years of life. In the Elwyn (American) table, Dr. Barr finds the following percentages of causes :—

Acting before birth	64.85
Acting at birth	2.92
Acting after birth	32.23

one of grade; it is a distinction of purpose — a consequent of social cleavages. Thus, in France and Germany, where caste is of long standing, the children of the so-called “better class” do not attend the people’s elementary school at all, or if they do so, do not complete the course, but transfer at an early age to the secondary school. Here they enter immediately upon the foundation work of secondary education and continue in the school until early manhood. One notable exception to this form of secondary school is found in the United States, where secondary education, under the impulse of democratic ideals, is a direct continuation of the work of the elementary school and is of comparatively short duration.¹ The average graduate of the American secondary school is some two years or more behind the French or German graduate of the corresponding institution.

Higher education, in most countries, is the work exclusively of the university. With its history of a thousand years, the university is the traditional institution for the conservation of the learning of the ages and the encouragement of

¹ For discussion of the weakness of the American system in this respect, see Part I of author’s “Problems of the Elementary School.”

that investigation which is the hope of the science and philosophy of the future. It is recognized everywhere as the capstone of the educational structure. President Low has defined it as "the highest organized exponent of the intellectual needs of man."

The United States, however, has developed an intermediate, rather indeterminate, institution called the college. The college gives opportunity to the graduates of the secondary schools to overcome the disadvantage at which they are held when compared with European graduates. It further carries them beyond, into what corresponds to university work abroad. Terminology is so loose that many American institutions calling themselves universities are doing work of but college grade. On the other hand, there are several strong colleges and universities which offer extended courses of superior grade to college graduates. They grant to postgraduate students advanced degrees which are, in every respect, on a par with foreign university degrees.

According to Professor Laurie,¹ the earliest pro-

¹ S. S. Laurie, "The Rise and Early Constitution of Universities," Appleton, 1902.

tototype of our modern university was the institution at Alexandria, whose library was founded B.C. 298, and whose influence was such as to encompass the intellectual life of three continents. He would also date university instruction in Rome back to 69 A.D. and in Constantinople to 379. In the modern sense, however, we credit Bologna with the first of the universities. In the year 1200 it is said to have had 10,000 students—this is less startling, however, if we recall the form of organization of the institution and probable inclusion in this reckoning of all persons in any way connected with the corporation. The universities of Paris and Oxford date back to about the same time, and the “starting point of the great German universities” was at Prague, in 1348.¹

Vocational schools are those whose aim is to give specific training for vocational work. The traditional purpose and atmosphere of the schools which we have grouped above into four grades are general and cultural rather than specific and practical. In a sense, of course, all schooling is a prep-

¹ For an extensive bibliography on student life in the higher schools of America and Europe, see Appendix to Henry D. Sheldon, “Student Life and Customs,” Appleton, 1901.

aration for life work, and we note to-day a strong sentiment in favor of placing greater emphasis upon the vocational phase of the work of all grades of institutions.

"Among all the purposes that education may be expected to serve, it is perfectly clear that individual and community efficiency is paramount, and, moreover, that this efficiency is general, having equal application to the industrial and to the nonindustrial, to the vocational and to the nonvocational." — E. Davenport, "Education for Efficiency," Heath, 1909, p. iii.

"It would be safe to say, then, that a very large percentage of poverty is caused, directly or in the second stage removed, by a lack of useful training. We should not be warranted in attempting to state it as a definite percentage. To establish the fact that there is a connection between much of the existing poverty and the untrained, unskilled condition of the impoverished persons, is all we might hope to do." — John M. Gillette, "Vocational Education," American Book Co., 1910, p. 143.

"It is because it is believed that the individual training of the young holds in solution the essential ideas that underlie the various activities of society, and that this substratum of experience in industrial processes is as necessary a condition for the normal development of the individual as racial industry has been for the maintenance and advance of society itself, that the question is beginning to command the attention of thoughtful people." — Katherine Elizabeth Dopp, "The Place of Industries in Elementary Education," Chicago, 1909.

Purely technical training, however, is to be found in institutions entirely distinct from those

we have been considering, or in independent departments of such institutions. Vocational education is of all grades, from the training of pupils of elementary school age in simple industries to the advanced technical and professional research work of students of university rank. "One of the vital elements of the problem is the question of the relation of school training to shop practice or apprenticeship." "Trades which can be carried forward with special effectiveness in certain neighborhoods should be taught in the schools of those neighborhoods."¹ The directions taken by vocational education are manifold and not readily classifiable, but for our purpose this group of schools may be subdivided into four types: professional, commercial, industrial, agricultural.²

¹ Harlow S. Person, "Industrial Education," Houghton, Mifflin, 1907, p. 236.

² Commissioner Snedden in his monograph, "The Problem of Vocational Training," Houghton, Mifflin, 1910, p. 8, outlines the classification thus: "That vocational education which is specialized to the preparation of lawyers, physicians, and teachers, we call professional; that which is designed to train the bookkeeper, clerk, stenographer, or commercial traveler, including business leadership, we call commercial; that which is organized with reference to the needs of the bricklayer, the machinist, the shoemaker, the metal worker, the factory hand, and the higher manufacturing pursuits, we call industrial education; that which conveys skill and knowledge

In School Administration, no less than elsewhere, is the distinction of sex to be recognized. Few nations have yet come to the point of declaring for coördinate education of men and women; almost everywhere is there disproportionate provision made for boys. Hence, in any systematic study of the schools of a country it becomes necessary to note the degree of educational opportunity offered to women. One of the problems incidental to the general enlargement of this degree of opportunity is that of coeducation. Shall male and female students be taught in the same classes

looking to the tillage of the soil and the management of domestic animals, we call agricultural; and that which teaches the girl dress-making, cooking, and management of the home, we call education in the household arts."

We shall not especially concern ourselves with this last group, for, as Dr. Snedden says, p. 26, "In the household arts, there exist at the present time almost no genuine vocational schools, although there are widespread opportunities for some partial study, and practice of these arts, as phases of liberal education."

Cf. "Recently the public school has undertaken the responsibility of extending its work into the household science field, that the benefit of such organized instruction may reach all women as a part of their general education. When such liberal training is widespread, then the public may expect the rational and justifiable in household procedure where we now have the haphazard and traditional." — Arthur D. Dean, "The Worker and the State," Century, 1910, p. 87.

or within the same school? Different countries with their differing ideals and traditions give divergent answers. It would seem that neither the proponents nor the opponents of coeducation have the better of the theoretical discussion of the subject. Valid arguments are advanced both pro and con, but except for a mere summary of these arguments at this point, we shall content ourselves with noting the actual practice as we take up the more detailed study of each country.

It is pretty generally admitted that the question of coeducation is not the same for the various grades, although some extremists would not tolerate it in any grade.¹ Other educators would have coeducation in the elementary schools but no farther; others would carry it through the secondary institutions; still others would extend it throughout the entire educational course. There is, too, a large and probably growing number who would segregate the sexes during secondary education, but would coeducate before and after that stage.

To provide separate elementary schools for

¹ See Superintendent Haaren in Report of the City Superintendent of Schools, New York, 1909, p. 259.

each sex would increase educational expenditure by a very large percentage, and no nation, whatever its desire, has yet had the wealth with which to incur this additional expense. In rural districts, pupils must travel quite far enough as it is to reach the schoolhouse with its single coeducational class. To organize such a school into separate classes for boys and for girls would be to place a prohibitive burden upon the taxpayer; to require either all the boys or all the girls to travel on to the next school in order to secure segregation would be either a cruel or impossible exaction. Hence coeducation in rural schools of elementary grade is common practice the world over. In the cities, segregation is a more simple matter, and practice follows local opinion. Secondary and higher education applies to but a small percentage of students and is given, almost universally, in schools comprising several classes. Thus, whether such schools shall be organized as "mixed" or not is less dependent upon financial consideration.

It may be well to sketch the chief arguments advanced for and against coeducation in schools of secondary grade.¹

¹ See Louisa Parsons Hopkins, "Coeducation of the Sexes in Boston Public Schools," *Educational Review*, Vol. I, p. 46; Horace A. Hollister, "High School Administration," D. C. Heath and Co.

For coeducation : —

(1) Free intermingling of boys and girls is the natural condition, the condition prevailing in the home and in the community.

(2) Segregation encourages artificial and clandestine relations.

(3) There is a reciprocal influence both intellectual and moral, of boys upon girls and of girls upon boys, which should not be lost to either.

(4) The morbid tendencies induced by adolescence are diverted and corrected by coeducation.

(5) There is opportunity for the teaching of social amenities and of respect of each sex for the ability of the other.

(6) Discipline is easier through the stimulus of emulation and the refining influence of girls and the steadying influence of boys.

Against coeducation : —

(1) The natural innate differences in temperament due to sex demand separate training for boys and girls.

(2) The natural differences arising at adolescence should be regarded as instructive, and should be respected by not forcing boys and girls into companionship in the schoolroom.

(3) "Too much association at the period, with a strong spirit of *camaraderie*, takes away much of the real charm and freshness which ought to characterize the attitude of youth toward the opposite sex."¹

1909, p. 165; Mabel Hawtre, "The Coeducation of the Sexes," London, 1896, showing that boys and girls ought not to be given identical education; John Franklin Brown, "The American High School," Macmillan, 1909, p. 386. Also, United States Commissioner's Report, 1901, Vol. II, p. 1283, for bibliography on the subject.

¹ Hollister, *op. cit.*, p. 165.

(4) The moral dangers arising from too easy a relationship between the sexes.

(5) The physical danger for girls, with the further possibility of the work being too easy for the boys if it is modified to meet the needs of the girls.

(6) The administrative difficulties, especially in small schools, such as

(a) The need of modifying instruction in its method and atmosphere to reach both boys and girls.

(b) Equipment and program as to physical and manual training.

(c) Scarcity of teachers peculiarly adapted to mixed classes.

It is evident that nearly all the arguments against coeducation fail to apply to early elementary schooling. It is only with the adolescent education that the discussion assumes serious importance. With the development of students into manhood and womanhood, and the passing of the acute stage of adolescence, many of the arguments again become irrelevant, and the case of coeducation in the college or university rests on a somewhat different foundation.

On one side, we may note the recent abandonment of coeducation on the part of Tufts College through the establishment of a separate institution for women.

The committee charged with investigating the matter set forth the facts and their conclusions in a report,¹ a brief excerpt from which reads as follows:—

“We have held personal conversation upon the matter with a large number of the members of the Faculty of Liberal Arts. Each and every one so consulted gave it as his opinion, formed carefully and deliberately after several years’ teaching and observation, that the interests of *both* men and women would be best served by a segregation of the sexes. Some of the professors admitted this to be a reversal of their earlier opinions and judgment. We could not learn that there is, at present, any professor who now feels that coeducation at Tufts has proven so satisfactory in its results that it should be continued.”

Some of the reasons given for these conclusions are, briefly:

“In a few studies, the delicacy of treating fully a subject where both men and women were present in the same class. This was not, however, by any one considered a sufficient cause in itself to justify a change.

“The invariably different viewpoint (due to the difference in sex) from which men and women approached nearly all of the subjects, and the difficulty, in the hour of the recitation, of properly presenting the subject to the comprehension of both sexes.

“A natural reluctance on the part of both sexes to enter, during a recitation, into any argument with the other sex over any subject under consideration.

“The tendency of women to select courses in which from the nature of the subject and their natural aptitude and ability they will secure high marks, coupled with the general desire of

¹ Circular of Information relating to the establishment of Jackson College for Women, Tufts College Bulletin, May, 1910.

women for high marks. This secures to the women students a higher average standing than the men, and consequently a rather disproportionate part of the awards, prizes, and prestige, which, under coeducation, are always awarded in common for both men and women. If the women took more of the courses ordinarily taken by the men, it is probable that the results would be somewhat different; but as it is, it appears, rightly or wrongly, that the incentive on the part of the men to work for honors, and awards is very much weakened by the approximate certainty of non-success, due to the peculiar competition above referred to.

“If this were the *only* ground, it is probable that the condition could be met by a plan which would secure a setting apart of honors, prizes, and awards for men and women on the basis of the scholarship in each sex, although this would be contrary to one of the fundamental principles of coeducation.

“It was admitted that the presence of women served slightly as a stimulus to the men, and the sentiment was quite generally expressed that their presence on the Hill had served to help the tone of the community — had exercised a sort of refining influence on the men.

“Outside of the causes already mentioned and the clear-cut opinion, as already stated, of each and every one of the Faculty consulted, namely, that in his *particular* subject he was firmly convinced that better results for both men and women could be secured if he were to teach them separately, the professors advised us that in their dealings with the students they found: —

“A feeling or sentiment pervading the whole student body, both men and women (there being but very few individual exceptions), that each sex would be better off in their work were the other absent.”

On the other side we have the testimony of many leaders of educational thought, among them, to cite but one, the President of Leland Stanford Junior University, who sums up the case in these words: "Other things being equal, the young men are more earnest, better in manners and morals, and in all ways more civilized than under monastic conditions. The women do more work in a more natural way, with better perspective and saner incentives, than when isolated from the influence and society of men."¹

¹ David Starr Jordan, "The Care and Culture of Men," San Francisco, 1896, p. 130.

CHAPTER V

THE UNITED STATES

"Education in the United States is not so much disorganized as it is unorganized. It is not so much unorganized as it is the subject of cross and various organizations. It is in certain relations overorganized. The units of organization are many, diverse, and often cover identical conditions."—THWING, "College Administration," p. 1.

THE schools of the United States present two characteristics which seem to stand out beyond all others. The first of these is the abiding, almost pathetic, faith of the American people in the virtue and power of formal education, a faith nation-wide and deep-grounded. From the days of the worthy "Nine Men" of New Amsterdam, who, in 1649, protested that "there should be a public school provided with at least two good masters, so that, first of all, in so wild a country, where there are many loose people, the youth be well taught and brought up, not only in reading and writing, but also in the knowledge and fear of the Lord,"¹ down to the present time, we may

¹ Edwin Grant Dexter, "A History of Education in the United States," Macmillan, 1904, p. 16.

trace the notion that to establish a school is to guarantee sobriety and prosperity.¹

The second characteristic, no less striking than this faith in education, is the fierce determination of the American people that their schools shall be clothed only in the conventional raiment of democracy. As a consequence, the schools are jealously guarded against the intrusion of whatever might seem to recognize caste. "In no other country is there so definite a purpose to make the public schools good enough for both rich and poor."² As Dr. Draper states it: "The nation wants more than industrial power. . . . There are no 'classes' in education. It is the national belief that the true greatness of the nation and the welfare of mankind depend not only upon giving every one his chance, but also upon aiding and inspiring every one to seize his chance."³

¹ See Ellwood P. Cubberley, "Changing Conceptions of Education," Houghton, Mifflin, 1909, p. 67. In this monograph the author outlines the significant changes which have taken place in our national life, and sketches the present trend in the consequent changes in the conception of the school.

² Dutton and Snedden, "The Administration of Public Education in the United States," Macmillan, 1908, p. 17.

³ Andrew S. Draper, "American Education," Houghton, Mifflin, 1909, p. 14.

The concrete result of this belief is to be seen in the organic structure of the American school system.

The words *American system* are used advisedly, and in the face of the condition that as "each city, each county, and in some States each country district has practically the privilege of conducting its schools in accordance with any whim upon which it may decide, it is but natural that the schools of different cities should vary considerably in their standing."¹ Notwithstanding this variation, the schools throughout the nation have so much in common as to constitute them into something distinctively American. Moreover, the trend is all toward a standardization of structure. So, as we proceed to consider the different groups of schools, we must do so with a consciousness of the proper sense in which the term American School System may be employed.

Infant Education

America has not taken kindly to the idea of having its public schools exercise the function of the day nursery. Hence, in the history of

¹ J. M. Rice, "The Public School System of the United States," Century, 1893, p. 2.

American Education, we have to await the appearance of the Kindergarten, with its broader program, before we see any serious attempt to serve children of infant grade.

It is true that in 1827 an Infant School Society was formed in New York City in the interest of children from three to six years of age, but it was soon incorporated into the New York Public School Society, and its schools merged into the primary departments of the public school system. Similar attempts in other cities met with like meager results.

It was in 1855 that Mrs. Carl Schurz, who had studied under Froebel, established at Watertown, Wis., the first American kindergarten. Of the early kindergartens in the United States, all of which were under private administration, the great majority were organized by Germans and conducted in the German language. The notable exception was the school opened in Boston in 1860 by Miss Elizabeth Palmer Peabody, sister-in-law of Horace Mann, and "usually considered the apostle of the kindergarten movement in the United States."

The first public kindergarten was opened by the School Board of St. Louis, Mo., in 1873, under the superintendency of Dr. Harris. It was taught gratuitously by Miss Susan E. Blow,¹ a pupil of Mrs. Kraus-Boelte, with such success as to

¹ Miss Blow soon became an influential leader in the kindergarten movement and has written authoritatively on the technique of the subject. Chief among her books are: "Symbolic Education," "A Commentary on Froebel's Mother-Play," "The Mottoes and Commentaries of Friedrich Froebel's Mother-Play," "The Songs and Music of Froebel's Mother-Play," "Letters to a Mother."

establish it firmly in the St. Louis system and to encourage similar experiments in other cities.¹

In Boston, Mrs. Quincy A. Shaw supported the entire free kindergarten system of the city, from 1876 to 1889, in which year the thirty-six classes to which it had grown were taken over by the city. Among the other cities which, in the early years, adopted the kindergarten as a part of their public school system, the larger were : —

Milwaukee, Wis. . . . 1881	Lexington, Ky. . . . 1891
Des Moines, Ia. . . . 1883	Utica, N.Y. 1891
Portland, Me. 1883	St. Paul, Minn. . . . 1892
New Orleans, La. . . . 1886	Chicago, Ill. 1893
Hartford, Conn. . . . 1886	Worcester, Mass. . . . 1893
Philadelphia, Pa. . . . 1887	New York, N.Y. . . . 1893
Rochester, N.Y. . . . 1888	Omaha, Neb. 1893
Los Angeles, Cal. . . . 1889	

To-day there are hundreds of cities and villages maintaining public kindergartens, with a total enrollment approximating 200,000.²

¹ For bibliography on the kindergarten in representative cities see Appendix, Nina C. Vandewalker, "The Kindergarten in American Education," Macmillan, 1908.

² This acceptance of the kindergarten as an integral part of the American school system has not been effected without a contest. The struggle is interestingly depicted by Miss Vandewalker, who sketches it in accordance with the following outline : —

Period of Introduction 1855-1880	{	1. German Kindergarten, 1855-1870. 2. Accepted as American Institution, 1880-1890.
Period of Extension 1880-	{	1. Unquestioned acceptance, 1880-1890. 2. Critical period and reconstruction, 1890.

Elementary Education

Throughout the length and breadth of the United States, punctuating the landscape with persistent frequency, stands the "district" school-house, built by the people, apostrophized by the poet, lauded by the political orator, and held in fond remembrance by thousands of men and women who credit it with having exercised an influence upon them far out of proportion to its size and superficial appearance.¹

Of the total population of the nation, one person in every five is enrolled in its public schools; of this enrollment, one third is in the schools of the cities and larger villages. The prevailing course in the urban schools is eight years, although some 20 per cent of the cities have

¹ For an outline of the growth of the people's schools in the various States, see Dexter, *op. cit.*, Chaps. 1-5.

Of the enrollment of pupils in private schools, the greater part is in Catholic schools. "The greatest religious fact in the United States to-day," says Bishop Spaulding, "is the Catholic school system, maintained without any aid except from the people who love it. A school system which comprises 1,000,000 pupils, over 20,000 professional teachers, more than \$100,000,000 worth of property, with an annual expenditure in the neighborhood of \$15,000,000. . . ." — J. A. Burns, "The Catholic School System in the United States," Benziger Bros., 1908, p. 13.

adopted a nine-year course, thus permitting the pupils to take the curriculum more leisurely or to add a "continuation" year to their normal elementary instruction. Among these cities are Sacramento, Cal., Hartford, Conn., Portland, Me., St. Joseph, Mo., Utica, N.Y., and Buffalo, N.Y. On the contrary, in some places the course is limited to seven years, as in Decatur, Ill., Kansas City, Mo., Mobile, Ala., Asheville, N.C., and many other cities in the Southern States.

The rural school, in many cases, aims high at a formal and extended curriculum, classifies its pupils into "grades," and otherwise seeks a standard difficult of attainment under limited material conditions. When it comes to accomplishment, the rural school gives instruction in the common branches usually more in accord with the demands of its local supporters than in compliance with a theoretically standardized curriculum, and, when it is not too crowded, in an atmosphere of attention to the individual which but infrequently pervades the city classroom.

The need of reform in the organization of the rural school is rapidly becoming recognized in

many parts of the country. The chief remedy proposed, to offset the shortcomings resulting from sparseness of population, is in the direction of consolidation of schools. In accordance with this plan the weak schools within a given radius are discontinued and in their stead there is established one strong, graded school, centrally located.

Dr. Foght gives us a picture of this educational phoenix in the following language: "A modern school will rise, near the center of the township, which will afford every opportunity for practical preparation for happy life on the farm. The school will be hygienic, and have modern equipment and better teachers. The course of study will be graded, recitation periods longer, interest well sustained, years in school longer. Pupils living at a distance will be conveyed to school in suitable vehicles, avoiding exposure to inclement weather. Finally consolidated schools can offer ample opportunities for thorough work in nature study, school gardening, and elementary agriculture, as well as manual training and domestic economy."¹

Massachusetts seems to have been the pioneer in this movement, authorizing consolidation in 1865, and a few years later providing for the conveyance of children at public expense. The

¹ Harold Waldstein Foght, "The American Rural School," Macmillan, 1910, p. 302.

State now spends in the neighborhood of a quarter of a million dollars annually for free conveyance. Connecticut and Vermont have also experimented along this line, and the movement is making considerable headway in the States of the Middle West.

A steady advance in the progress of elementary education is shown by the statistics of enrollment. For instance, in 1870 the schools were open on an average of 132 days in the year, whereas in 1909 this figure had risen to 155.¹ Each pupil enrolled attends on average of 112.6 days, a percentage of attendance exceeding 72.

Auxiliary Education

It has long been conceded in America that society should make provision for its unfortunate blind and deaf. All but five of the States have established institutions wherein instruction is given to the blind, in some cases extending from

¹ With considerable variation in different sections of the country:—

North Atlantic States	179.0
South Atlantic States	138.6
South Central States	123.3
North Central States	164.7
Western States	161.2

the kindergarten to the high school. For the deaf,¹ in addition to several private schools, all

¹ The following "Order of the Day" of the Missouri School for the Deaf is typical:—

Rise	6.00 A.M.
Breakfast	6.30
Chapel	7.45
School and shops	8.00
Recess	10.30 to 10.45
Close of school and shops	12.50 P.M.
Dinner	1.00
School and shops	2.00
Close of school and shops	4.30
Supper	6.00
Study	7.15
Retire	7.30, 8.00, 8.30, and 9.30

SATURDAYS

Rise	6.00 A.M.
Breakfast	6.30
Shops	8.00
Close of shops	12.00
Dinner	12.30 P.M.
Supper	6.00
Retire	7.30, 8.00, 8.30, and 9.30

SUNDAYS

Rise	6.00 A.M.
Breakfast	6.30
Chapel	9.00
Study (Sunday lesson)	10.30 to 11.30
Dinner	12.30 P.M.
Sunday School	3.00
Supper	5.30

but six States support institutions, there being in 1910 fifty-seven of these, of which New York had eight and Pennsylvania four. There is also a rapidly increasing number of recently established public day schools; Chicago, New York, Boston, and Milwaukee leading as to size.

In the large cities the class for the deaf in a public day school has distinct advantages over the boarding institution. It accustoms the child to the actual conditions which he is to meet in after life; it gives him the benefit of contact and competition with normal children (for, as soon as he is able, he takes much of his work in regular classes); and it inculcates in the normal children a wholesome respect for the abilities of the afflicted.

In the early part of the nineteenth century the first experiment in the training of imbecile children — fairly successful but short in duration — was made in the American Asylum for the Deaf and Dumb at Hartford, Conn.¹ The first public

General reading	7.00 to 8.00 P.M.
Retire	7.30, 8.00, 8.30, and 9.30

EVENING STUDY

Begin	7.15 P.M.
First Grade retire	7.45
Second and Third grades retire	8.00
Fourth, Fifth, and B grades retire	8.30
Club rooms, study	7.15 to 9.00
Retire	9.30

¹ For an outline of the origin and development of the care and training of the feeble-minded in the United States, we are indebted to Sylvester, *op. cit.*, p. 14 *et seq.*

institution was the Massachusetts School for the Feeble-Minded at Waltham, established in October, 1848. The New York State Institution for Feeble-Minded Children, now located at Syracuse, was established by act of legislature in 1851. This was shortly followed by similar institutions in Pennsylvania at Elwyn, and in Ohio near Columbus; and to-day a majority of the States have taken up the work. One of the most successful of the resulting institutions is the New Jersey State Home for the Care and Training of Feeble-Minded Women, and the related Training School for Feeble-Minded Girls and Boys, both situated at Vineland and established in 1888.

The first class for mental defectives was formed in Providence in 1894. This example was followed by Springfield, Mass., in 1894, Boston and Philadelphia in 1899, and New York in 1903.

The interests of auxiliary education are furthered by the National Association for the Study and Education of Exceptional Children, an eleemosynary association incorporated under the laws of the State of New Jersey.

In this connection reference should also be made to over 100 reform schools with more than 50,000 inmates, nearly all of whom have been committed in accordance with State laws and yet have not been guilty of criminal acts. Their commitment rescues them from criminal environment and saves them to honorable citizenship.¹

¹ For a discussion of the administration of correctional education and the education of defectives, see Dutton-Snedden, *op. cit.*, Chaps.

Secondary Education

Secondary education under the public school system is provided by what is universally known as the "High School," whose roots lie in the old-time English Grammar School.¹

In its growth, however, the institution went through an intermediate stage. The grammar schools, which flourished during colonial times, were gradually replaced by the academies, the first of which was established at Philadelphia in 1751. The academies expressed the anticlassical protest, but they were not sufficiently democratic and in turn gave way to the high schools. The first of these was founded in 1821 at Boston under the name "English Classical School," soon changed to "English High School."

Those of the leading American cities which opened public secondary schools prior to 1840, with dates, are: Boston, Mass., 1634; Salem, Mass., 1636; Portland, Me., 1821; Worcester, Mass., 1824; New Bedford, Mass., 1827; Fitchburg, Mass., 1830; Lowell, Mass., 1831; Harrisburg, Pa.,

24-25. A Bibliography of Mental Deficiency, by Henry H. Goddard, is published by the Training School, Vineland, N.J.

¹ "The Public Latin School of Boston enjoys the distinction of being the oldest existing school within the bounds of the United States. It was founded in the spring of 1635, thus antedating Harvard College, and has been in continuous existence ever since, with the interruption of a few months during the siege of Boston, 1775-1776."—Note introducing Phillips Brooks, "The Oldest School in America," Houghton, Mifflin, 1885.

1837; Philadelphia, Pa., 1838; Cambridge, Mass., 1838; Taunton, Mass., 1841.¹

To-day one person in about every eighty of the population of the United States is enrolled as a student in secondary educational institutions, and of this enrollment more than 80 per cent is in the public high schools.

That both the total per cent and the proportion of this per cent sustained by the public schools is steadily on the increase, is shown by the following, more exact, tabulation :—

PER CENT OF POPULATION IN SECONDARY EDUCATION

YEAR	PUBLIC	PRIVATE	BOTH	PER CENT PUBLIC
1889-1890	0.36	0.23	0.59	61
1899-1900	0.70	0.25	0.95	74
1909-1910	1.02	0.21	1.23	83

¹ For the two succeeding decades the list is :—

Springfield, Mass.	1841	Lynn, Mass.	1849
Binghamton, N.Y.	1842	Lawrence, Mass.	1849
New Orleans, La.	1843	Lancaster, Pa.	1849
Providence, R.I.	1843	Dayton, O.	1850
Detroit, Mich.	1844	Gloucester, Mass.	1850
Chelsea, Mass.	1845	Waterbury, Conn.	1851
Cleveland, O.	1846	New Britain, Conn.	1851
Cincinnati, O.	1847	Reading, Pa.	1852
Hartford, Conn.	1847	Wilmington, Del.	1852
New York, N.Y.	1849	Somerville, Mass.	1852
Toledo, O.	1849	Holyoke, Mass.	1852

A fact significant of the esteem in which public high schools are held is that the grounds and buildings devoted to this use have a value not far from a quarter of a billion dollars.¹ Normally, the high school course is of four years; very few cities satisfy themselves with less,

St. Louis, Mo.	1853	Chicago, Ill.	1856
Salt Lake City, U.	1853	Louisville, Ky.	1856
Racine, Wis.	1853	Springfield, O.	1856
Easton, Pa.	1853	Oshkosh, Wis.	1856
Buffalo, N.Y.	1854	Rockford, Ill.	1857
Pittsburg, Pa.	1854	Malden, Mass.	1857
Sacramento, Cal.	1854	Springfield, Ill.	1857
Newark, N.J.	1854	Woonsocket, R.I.	1857
Paterson, N.J.	1854	Scranton, Pa.	1858
Troy, N.Y.	1854	Peoria, Ill.	1858
Utica, N.Y.	1854	Norfolk, Va.	1858
Canton, O.	1854	Rochester, N.Y.	1859
Syracuse, N.Y.	1855	New Haven, Conn.	1859
Nashville, Tenn.	1855	Grand Rapids, Mich.	1859
Pawtucket, R.I.	1855	Newton, Mass.	1859
Schenectady, N.Y.	1855	Davenport, Ia.	1859

For an extension of this list, as well as for general historical sketch of secondary education in America, see Elmer Ellsworth Brown, "The Making of our Middle Schools," Longmans, Green, 1903.

¹ What we might term the ideal high school is described by the High School Committee of the University of Colorado in its statement of what that institution requires of a preparatory school in order that its graduates may enter the university without examination.

1. There should be in any community, supporting a high school, something of enthusiasm for the school, some pride in it, and a well-marked willingness, coupled with the ability to spend money and to

and several add a fifth year, as Los Angeles, Cal., Kansas City, Mo., Boston, Mass., Detroit,

spend it intelligently. The attitude toward the teacher should be one of consideration and coöperation.

2. The location and construction of the buildings; the lighting, heating, and ventilation; the nature and care of the lavatories, the corridors, closets, water supplies, school furniture, apparatus, must be such as to insure hygienic conditions for both pupils and teachers.

3. The library, the laboratory, and all other equipment must be adequate to the needs of instruction. They should be much more than barely adequate.

4. The teaching staff should consist of at least three teachers of academic preparation equivalent to that usually represented by the B. A. degree. They should have had some professional training (the best evidence of which is professional experience and success), and should have enthusiasm for their work.

5. It is strongly advised that no teacher be required to teach more than five periods per day. No school will be considered which requires more than six periods of any teacher.

6. No school will be considered whose records show an abnormal number of pupils per teacher.

7. It is expected that there will be an earnest spirit of coöperation between teachers and teachers, and between teachers and pupils, and that the general, intellectual, moral, and school tone will be high.

8. A school asking to be accredited should have been completely organized on the above basis long enough to have graduated classes for two years, and should have a creditable class for graduation in the year in which it makes its application. A school some of whose graduates have gone on to higher institutions is more acceptable than one of which this is not true.

9. The high school should have a sound and well-balanced course of study, and graduation from the school should be based upon not less than fifteen units.

Mich., Butte, Mont., and Syracuse, N.Y. This fifth year is in the nature of a post-graduate term and naturally enrolls but a small number of pupils.

Higher Education

Turning back the pages of history, we see that the American people have given an even larger degree of attention and support to higher education than to the elementary and secondary schools.

The colonists, especially of New England, brought with them an ideal of culture, which not all the cruel privations of pioneer life could crush. As President Thwing says, referring to the founding of Harvard in 1636, "A devotion to the highest ideals, so great and so triumphant, under conditions so forbidding, the world has not known."¹ Thus, as we are reminded by Dr. Flexner: "The American college is not like the common school, indigenous to American soil. It did not spring up to meet a native need. It was imported to meet a need that the colonists brought with them. Hence, a conservative, not an adaptive institution, it bound the emigrant to his past. . . ."² This applies to the colleges of the first of the three periods into which we are accustomed to dividing the history of higher education in America. The colonial period was given over to this transplanted English institution, ecclesiastical in its origin, spirit, and control.

¹ Charles F. Thwing, "A History of Higher Education in America," Appleton, 1906, p. 9.

² Abraham Flexner, "The American College: A Criticism," Century, 1908.

In the middle period, beginning just before the Revolution, a new spirit prompted the organization of colleges along more independent lines, beginning with King's (now Columbia) in 1754, and followed some time later by a new type, the State universities, — Tennessee, 1794; North Carolina, 1795; Georgia, 1801; Indiana, 1820; Virginia, 1825; etc. Many small denominational colleges were also founded during this period.¹

The third (modern) period began at the last third of the nineteenth century. Speaking of its origin, President Thwing says: "A new day was about to dawn in the academic world. Its significance was largely unknown to those who lived in its morning. But seen from a distance of a generation, its coming was full of meaning. Three causes at least contributed to the intellectual sunrise."² These causes were: the Civil War, com-

¹ The complete list of the colleges and universities opened prior to 1800 and now in existence is: —

Harvard University	1638	Dickinson College	1783
College of William and Mary	1693	University of Nashville	1785
Yale University	1701	University of Pittsburg	1786
University of Pennsylvania	1740	Georgetown University	1789
Princeton University	1746	St. John's College (Annapolis)	1789
Washington and Lee University	1749	College of Charleston	1790
Columbia University	1754	Williams College	1793
Brown University	1764	Washington and Tusculum College	1794
Rutgers College	1766	University of Tennessee	1794
Dartmouth College	1769	University of North Carolina	1795
Hampden-Sidney College	1776	Union University	1795
Washington College	1783		

² *Op. cit.*, p. 431.

mercial prosperity, and the scientific movement. Under this stimulus came such institutions as Cornell, 1868, Johns Hopkins, 1876, Clark, 1889, Leland Stanford, Jr., 1891, University of Chicago, 1892, and many technical schools of high rank. The period is also marked by the striking development of the post-graduate system.

The most significant feature of the American institution for higher education is its lack of standardization. The terms *college* and *university* have a distinguishing content theoretically, which is illustrated but meagerly in practice. Dr. Eliot clearly states the distinction as follows: "When the American university is properly organized, it will become clear to the public that a college is a place of training for the first degree in arts or science obtainable at about twenty-one years of age, and that a university is a place for older students who already possess the preliminary degree in arts or science, and are studying for higher degrees in large variety."¹

Comparatively few of our institutions, however, measure up to this scheme of organization. We have the spectacle of ill-equipped institutions calling themselves universities when their resources

¹ Charles Eliot, "University Administration," Houghton, Mifflin, 1908, p. 42.

are taxed to the utmost in giving a proper collegiate training to their students. On the other hand a few "colleges" are effectively active in the sphere of university work. Leading educators realize the waste that is involved in this chaotic condition, though few might care to defend the thesis stated by Professor Ladd in the concluding paragraph of the forceful quotation which follows.

" . . . There can be no doubt that the great majority of the institutions now called 'universities' should renounce both the name and the pretence of the thing. Only those few institutions that have already acquired large resources of famous men and established courses and equipment for the highest instruction, and that can hope to draw from their own and from other colleges a sufficient constituency of pupils already trained in a thorough secondary education, should strive to develop themselves into universities. Large means for scientific research — libraries, museums, observatories, etc. — are indispensable for this development. A complement of professional schools, with their faculties, is also, if not indispensable, at least highly important. I venture

to assert that not more than a half-dozen (?) universities should be developed in the entire country during the next generation, and that no new institutions to bear that name should, on any grounds whatever, be founded."¹

It is evident that there is to-day neither a standard American college nor a standard American university, although our best ideals of the former are exemplified by several institutions. The college typical in accordance with this ideal admits students who have had four years of secondary training and offers them an option of two or three main lines of work extending over four years and leading to the degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Letters, according to the character of the course pursued. University work, in lines other than professional, is largely a matter of post-graduate study at a college or university which has developed courses of this grade, but continues to maintain its collegiate department. Degrees of Master of Arts and Master of Science, after one or two years' work, and those of Doctor of Philosophy and Doctor of Science, after two or

¹ George Trumbull Ladd, "Essays on the Higher Education," Scribner's, 1899, p. 48.

three years' work, are the principal diplomas awarded.

There are in the United States over 600 institutions of higher education, public and private, with an enrollment rapidly approaching 200,000.¹

¹ On the basis of total enrollment in 1910 (excluding students in summer schools), the leading institutions are:—

1. University of Chicago, Ill.	6681 *
2. University of Minnesota, Minneapolis, Minn.	5050 *
3. Northwestern University, Evanston, Ill.	4830 *
4. University of Illinois, Urbana, Ill.	4783 *
5. University of Michigan, Ann Arbor, Mich.	4755
† 6. <i>College of the City of New York, New York, N.Y.</i>	4430 *
7. Cornell University, Ithaca, N.Y.	4227
8. University of Pennsylvania, Philadelphia, Pa.	4126
9. Harvard University, Cambridge, Mass.	4046
10. University of California, Berkeley, Cal.	3858
11. University of Wisconsin, Madison, Wis.	3645
12. New York University, New York, N.Y.	3627
13. Columbia University, New York, N.Y.	3534
† 14. <i>Valparaiso University, Valparaiso, Ind.</i>	3301 *
15. Yale University, New Haven, Conn.	3297
16. University of Nebraska, Lincoln, Neb.	3062
17. Syracuse University, Syracuse, N.Y.	3040

* The above figures include students in preparatory classes as follows:—

Chicago	674	C. C. N.Y.	2971
Minnesota	1382	Northwestern	1054
Illinois	334	Valparaiso	656

† Not properly in this list when number in preparatory classes is deducted.

For comparison of fourteen leading American universities, with conclusions, see Edwin E. Slosson, "Great American Universities," Macmillan, 1910.

The classical course, in spite of the present trend away from these studies, still enlists more students than does general science.

There is much current criticism of the American college, aside from this of its indefiniteness, much of which is sane and constructive, but some of which is no better than a phase of the general attack made upon culture by those who cannot comprehend it.

Of this latter sort, the following—here noted because already given a wide circulation—is a type. “It is conservative to estimate that the expense of higher education to this nation must be at least \$100,000,000 a year. And this enormous sum is literally thrown away, much to the injury of the country and its people.” This is the thesis formulated and defended by Mr. R. T. Crane in a book which he is pleased to call an “investigation.” In a metallic atmosphere of dollars and cents he finds it easy thus to dispose of the whole problem of education in some three hundred pages.

More helpful is the criticism of Mr. Birdseye, whose thought is: “The great problem of our colleges has to do, not with the institution, but with the life of the individual student. . . . Yet, notwithstanding the immense increase of institutional wealth, the average student is not getting what he ought out of his college career, nor as much of real value for his later life as did his predecessor of fifty or a hundred years ago.”¹ The avowed purpose of his books is “to lift college organization to the plane of the best with which we are familiar in the business world.”

¹ Clarence F. Birdseye, “Individual Training in our Colleges,” Macmillan, 1908, p. xxix.

A tangible evidence of the spirit of constructive criticism is seen in the Higher Education Association, incorporated at Albany, in 1909, "to improve higher education throughout the United States and in particular the internal and external conditions of the American college."

Vocational Education

In the larger cities evening schools have been established and are attended by some 400,000 pupils. Most of these schools primarily serve other purposes, but they are vocational in the sense that their students receive a supplementary education of elementary grade that contributes in some measure toward their vocational efficiency. Moreover, some of the schools make a point of giving elementary training in distinctively vocational subjects, notably commercial branches.

That the State shall utilize the school organization as a means of extending opportunity to pupils to qualify for industrial employment is so new a proposition to the American people that they have not yet developed even the rudiments of a system in this respect.

There have appeared in recent years a few schools, such as the Lowell Textile School, whose aim is to train for specific

trades. These schools are not numerous, but the beginning is significant, as indicating a tendency to recognize the value of special training as a means of developing expert labor. Belonging to schools of this class, but less formally organized, should be mentioned schools or courses of training offered by such manufacturing institutions as the Baldwin Locomotive Works.¹

The Report of the Commissioner of Education for 1910 gives a list of 142 schools in the United States which offer training for specific vocations in the industries. "The number of trade schools proper is small, the greater number of those in the list offering only intermediate or supplementary training." "In general, there may be said to be three types or grades of industrial training: (1) Complete trade training, in which the effort is made to graduate finished mechanics or skilled workers capable of doing journeymen's work and earning journeymen's wages. (2) Intermediate, or preapprentice, trade training, in which it is sought to shorten the period of apprenticeship or to give skill and intelligence preparatory to an industrial occupation. (3) Industrial improvement or supplementary instruction for those already engaged in industrial pursuits. It will be seen that some schools offer all three of these types, some offer two of them, and others offer only one."

The condition is set forth by the National Society for the Promotion of Industrial Education, in their second annual convention, 1908, as follows: "There are practically no facilities

¹ See Person, *op. cit.*, p. 51. For account of coöperative scheme between the public school authorities of Beverly, Mass., and the local shoe industry, see Dean, *op. cit.*, p. 241. Also Chap. 9 on "Supplemental Education in its Relation to Industry."

for the training of the youth between the ages of fourteen and eighteen for industrial pursuits, and the opportunities for those who are in the trades to improve their skill by theoretical training is confined to isolated and occasional schools. It is also perfectly clear that this is an industrial age, and that the education which is to serve for a whole people must take account of vocational training."

The mistake is often made of assuming that the introduction of the subject of manual training into the public schools is a concession to the interests of industrial education. The main purpose of the subject, in either the elementary or secondary curriculum, is cultural and not vocational. Nevertheless, several manual training high schools, organized independently, have put such an emphasis upon the vocational phase that we might be justified in classing these particular schools as institutions for industrial education.

Twenty years ago the subject of manual training was found in the public schools of less than forty cities, whereas to-day it appears in more than half of all the cities of the land. The first distinctive manual training high school was founded in 1880 at St. Louis, and was followed within a half-dozen years by

similar schools in Chicago, Baltimore, Philadelphia, Cleveland, Cincinnati, Denver, Omaha, etc.

In the matter of secondary-grade commercial education there is no uncertainty. While this form of education is yet chiefly in the hands of private proprietors, the typical high schools in the larger cities have their commercial departments in which the aim is frankly to prepare pupils for vocational efficiency. In several of the largest cities, supporting more than one general high school, the commercial school exists as a separate and distinct organization. "The Minnesota School of Agriculture, which was established by the Board of Regents of the University of Minnesota in 1888, was the first distinctly secondary school in the United States in which agricultural instruction was given."¹

In respect to vocational teaching of collegiate rank there is no lack of productive effort. The first technical school was the Rensselaer Polytechnic Institute, Troy, founded in 1824. The Sheffield School at Yale came in 1859, and to-

¹ Garland A. Bricker, "The Teaching of Agriculture in the High School," Macmillan, 1911, p. 15. See Report of Commissioner of Education, 1910, p. 255, for chapter on "Agricultural Education in the United States."

day our colleges have nearly as many students enrolled in engineering alone as in the classical department. The first institution to provide commercial education of collegiate grade was the University of Pennsylvania, in 1881, followed by the Universities of Wisconsin, California, Chicago, Michigan, and others. The New York University School of Commerce is distinctively professional in character — its work is not a substitute for a course in arts or science. Harvard has created the degree of Master in Business Administration to be conferred on graduates from the graduate school of business administration.

Most systematic accomplishment has been made in collegiate teaching of agriculture, chiefly owing to the stimulus of land grants for this purpose from the national government to the States. Michigan was the pioneer State, its constitution of 1850 providing for an agricultural school whose establishment was effected seven years later. To-day every State has its agricultural college or collegiate department, with a total enrollment throughout the country of some seven thousand students.

“There is a National Association of these colleges which aims to make them equal in

rank and entrance conditions to other first-class colleges, so that the bachelor's degree in the former shall have the same value as it has in the latter. Six of these institutions conduct secondary schools. They also hold long and short, summer, winter, correspondence, extension, and normal courses, and conduct farmers' institutes all over the State. Some courses last only a week or ten days, and admit boys. They teach forestry, dairying, stock judging, manuring, entomology, birds, foddering, poultry, grasses, floriculture, etc. No discovery in these stations can be patented, but all must be given out. Even the Babcock Machine, used the world over and saving millions of dollars, profited the inventor nothing. Forty of these colleges offer graduate courses leading to the degree of A.M., and nine grant the Ph.D."¹

The present status of this subject, as well as a word of prophecy, is indicated by the following excerpt from Professor Davenport's "Education for Efficiency." "Agriculture has earned an honorable place in some of the great universities in America, where with respect both to research and instruction, it is beginning to compare favorably with other professional and scientific subjects. It will never, however, really reach the masses of the people in an adequate way until it

¹ G. Stanley Hall, "Educational Problems," Appleton, 1911, Vol. I, p. 668.

attains in the high school the same relative rank it has already attained in the college, nor will the work of its extension be fully done until in some form its influence has permeated into the grades."¹

In the professional group there is no dearth of schools operated under private auspices. Some of these are independent institutions, but many others are but integral departments of a college or university engaged in several lines of work. The extent of opportunity for professional training, and the number of students availing themselves of it, may perhaps best be shown in tabular form:—

PROFESSIONAL SCHOOLS, 1909-1910

	SCHOOLS	INSTRUCTORS	STUDENTS
Theological	184	1453	11,012
Law	114	1543	19,567
Medical	135	7586	21,394
Dental	53	1546	6,439
Pharmaceutical	79	815	6,226
Veterinary	20	351	2,717

In passing, attention should also be drawn to a fifth group of vocations, at present insignificant

¹ E. Davenport, "Education for Efficiency," Heath, 1909, p. 124. The introduction of nature study of a practical agricultural value into the elementary schools is also a theme of Dr. Foght's book, already quoted.

as to tangible systematic recognition of its needs, but nevertheless highly important in its far-reaching influence upon the welfare of the homes of the nation and hence of the nation itself. "The organization of the American Home Economics Association, Washington, December, 1908, has given a new impetus to one of the most important branches of our industrial education, that which is commonly known as domestic economy or domestic science."¹ As it is, 1500 students are already enrolled in regular four-year collegiate courses in household economy.

Education of Girls

Although the justice and expediency of granting to girls even an elementary education at public expense was but tardily recognized, to-day there are in the United States over one hundred institutions of higher learning for women exclusively, and women constitute fully one third of the total number of students enrolled in collegiate schools of all kinds.

It was not until Revolutionary days that girls were admitted to the public schools of even so progressive a town as Boston. Some of the academies of New England were open to girls as

¹ Commissioner's Report, Washington, 1909, p. 11.

early as the closing years of the eighteenth century, but it was much later that a public secondary education of any kind was available to them. The opening of the Girls' Latin School, in 1878, gave Boston girls their first opportunity to be fitted for college. In Philadelphia, no girls could be prepared for college in the public schools before 1893. The opening to women of higher institutions of learning began with the founding of Oberlin Collegiate Institute, in 1833, which from the beginning was coeducational. The first institution exclusively for women was Mt. Holyoke, chartered in 1836; this was followed a year later by the Troy Female Seminary. In 1861, Matthew Vassar founded the Vassar Female College, with the statement that "It seemed to me that woman, having received from her Creator the same intellectual constitution as man, has the same right to intellectual culture and development."

Throughout the elementary schools coeducation is the general policy—at least it is the prevailing practice. In secondary education, too, the majority of high schools are coeducational.¹ In the range of higher education many colleges have followed the initiative of Oberlin, and opened their gates to women. With but one or two exceptions all of the State universities are coeducational, and, in all, more than two thirds of the higher institutions which admit men also admit women on favorable if not on

¹ For discussion, see Report of Commissioner of Education, 1910, p. 127.

equal terms. The University of Wisconsin is one of the foremost exponents of coeducation, indicated by the resolution of the Board of Regents that "men and women shall be equally entitled to membership in all classes of the university, and there shall be no discrimination on account of sex in granting scholarships or fellowships in any of the colleges or departments of the university."

Mrs. Olin, in a recent book,¹ discusses the advance of women in this institution and generally in the colleges of the Middle West. She supports the argument for coeducation and equal opportunity for women in vigorous language, of which the following unequivocal excerpt is illustrative: "Social problems now being clumsily fumbled by faculties of men might find easy solution if masculine impatience and incapacity in practical dealing with such problems were not as inevitable as they are notorious. No social question can be satisfactorily settled with so large an eclipse of human intelligence as is involved in the practical exclusion of women from the faculties of co-educational institutions."

¹ Helen R. Olin, "The Women of the State University," Putnam's, 1909. Excerpt at p. 299.

CHAPTER VI

GERMANY

"I think any one who reads in the German pedagogical literature of our day has now and then a sense of hopelessness of any educational originality. The range of its suggestion is in fact astounding. The new plan and conception of educational procedure which is just dawning above his horizon is very likely to appear in some German pamphlet or even in some 'Handbuch der Pädagogik' as a familiar notion, the boundaries of which have been well marked out and its values weighed in the balance." — BROWN, "Government by Influence," p. 127.

As in America, so in Germany there is no national system of schools; but, as in America the schools of the nation exhibit sufficient uniformity of character to justify the expression "the American schools," so throughout the German Empire an even greater conformity to a type permits us to speak of "the German schools." Politically, Germany consists of four kingdoms, six grand duchies, five duchies, seven principalities, three free cities, and one imperial territory, — in all, twenty-six independencies; but, whether considered from the standpoint of area or population, the single king-

dom of Prussia constitutes three fifths of the Empire. It comes about naturally, then, that students of education, especially foreign observers, speak of Prussian and of German schools in practically interchangeable terms; and it is true that, while the other states have developed their own distinctive systems, the Prussian fairly stands as the prevailing type.

For centuries the German leaders have been developing, and the German people supporting, an educational system which in its present-day expression is a most effective instrument for the accomplishment of the educational aims of the nation. In the words of Dean Russell,¹ ". . . the German school system is a living progressive institution that has changed from age to age in response to the changing ideals of successive periods. At no time has it been a finished product which could be studied apart from the political, social, industrial, and spiritual conditions of the people by whom it has been supported and for whom it still exists. It is the natural evolution of forces inherent in the German life; it is

¹ James E. Russell, "German Higher Schools," Longmans, Green, 1907, p. 107.

the result of a process of adaptation to German environment, it is an educational product peculiar to the Fatherland." It is this peculiar product which we now proceed to consider in detail.

Infant Education

Practically no attention is given to infant education in the school systems of Germany. This nation which gave the world the discoverer of the kindergarten has never indorsed his idea in any whole-hearted manner. Froebel established his first kindergarten at Blankenburg, in 1837, but so little favor did it meet that between the years 1851 and 1861 it was officially prohibited in Prussia, and even to-day has not been incorporated in the public school system of that kingdom. Even the private kindergartens are not largely attended.

Elementary Education

More than nine tenths of the children of school age are in the public elementary schools, known as the *Volksschulen* (people's schools), and characterized as the "most magnificent system of common schools in the world." The course extends

through eight years and is designed for those destined to service in the ordinary vocations. Less than 20 per cent of the schools of this grade have eight classes, the prevailing type, of course, being the rural school of from one to six classes.

Most pupils who are scheduled for secondary education never attend the *Volksschulen*, but go directly to the preparatory classes maintained by most of the secondary schools and known as the *Vorschulen*.

Auxiliary education is given in what are termed *Hilfsschulen*. For the deaf and dumb about 100 institutions are maintained, and for the blind about half as many. For the feeble-minded Prussia alone maintains over 200 schools, enrolling about 15,000, with less than 19 pupils per teacher. They are fully organized and set apart from the regular schools.¹ In 1910, 73 cities in the Empire had established such schools, with the effective result that the great majority of the pupils are turned out self-supporting. In smaller towns special classes for defectives are attached to the ordinary schools, under the name *Nebenklasse*.

¹ See B. Maennel, "The Auxiliary Schools of Germany," Washington, 1907, p. 123.

"In the establishment of special classes for mentally deficient children, Germany was the pioneer, and began the work in 1867. In Prussia since 1880 special schools or classes have been required in all cities of 20,000 or more. In some cases Germany has special schools ; in others, special classes for these children."¹

Secondary Education

The *höhere Schulen* (high schools) are not high schools in the American sense. They receive pupils, not upon their completion of the elementary course, but at about ten years of age, giving them a nine-year curriculum of a distinctively secondary character. These schools are of three kinds: the *Gymnasium*, the *Oberrealschule*, and the *Realgymnasium*.

The *Gymnasium* is the classical school where the emphasis is placed upon the Greek and Roman languages and literatures. Its aim is that of mental "discipline," as is noted from its title, which implies the value of mental gymnastics.

It dates back nearly half a millennium. "In 1521, Latin, Greek, and Hebrew were introduced into the old cathedral school, and five years later Melanchthon inaugurated a new secondary school embodying his curriculum. By this time

¹ George B. Mangold, "Child Problems," Macmillan, 1910, p. 132.

many other city schools had been remodeled, and the term *gymnasium* began to be used to indicate the schools of the new discipline."¹

In many smaller towns it is impossible to support a full-graded *Gymnasium*, and the resulting institution, lacking some, usually three, of the highest grades, is known as a *Progymnasium*.

The *Oberrealschule*, the second of the three kinds of secondary school, is the extension of the *Realschule*, and represents the headway gained by the modern scientific spirit over the purely classical ideal. Neither Latin nor Greek is studied, and there is a preponderance of science and modern language.

The *Realgymnasium* is the expression of compromise between the two extremes of classical and scientific aims. The first organized was in Berlin, in 1828. The law ordering the opening of the *Realgymnasium* in Wiesbaden, in 1845, well states the purpose of this kind of school as being to provide "a general scientific preparatory education for those who intend to devote themselves to a technical-practical profession, and who,

¹ Paul Monroe, "A Textbook in the History of Education," Macmillan, 1907, p. 391.

immediately after graduation, enter upon it, or who intend to continue their studies in a professional school or polytechnical university."

The nine classes of one year each, into which the course in all three of these secondary schools is divided, are termed in order, from the beginning: *sexta, quinta, quarta, untertertia, obertertia, untersecunda, obersecunda, unterprima, oberprima*. Pupils to be admitted must be nine years of age and have had three years of preparation, which is received either in the public or private elementary schools, or in the *Vorschulen* (*Vorgymnasia*) already referred to.

In 1900 equality between these three kinds of secondary school was established by royal rescript. Graduation from any one of these entitles the student to enter the university. Attendance for six years gains for him exemption of one year from the two years of army service required of every male citizen. Certain other civic and professional privileges are accorded varying lengths of attendance.¹

¹ See Russell, *op. cit.*, p. 469, for a table showing privileges attaching to Prussian secondary schools in 1904. He characterizes, p. 412, the whole system of privileges as "the bane of German secondary schools."

Over 300,000 students are enrolled in the secondary schools of the empire. The relative attendance on the three kinds may be stated in general terms: about one half are in the *Gymnasium* and two thirds of the remainder in the *Oberrealschule*.

In addition to these three varieties of schools giving secondary education proper, there exist in Prussia and a few other North German States, *Mittelschulen* (intermediate schools), "the aims of which reach beyond those of the elementary school, thus occupying an intermediate position between the latter and the *Realschule* and *Gymnasium*."¹ Prussia has some 150,000 pupils in

¹ W. Lexis, "A General View of the History and Organization of Public Education in the German Empire," Berlin, 1904, p. 104. The chief difference between the *Mittelschulen* and the *Volksschulen* has been that in the former French and English are taught. However, the Prussian "middle schools have recently (March, 1910) been reorganized by ministerial order, which provides (1) that they shall increase the number of compulsory grades from eight to nine, the lowest three, or even five, grades being parallel to the same grades in ordinary elementary schools; (2) that the local authorities may establish them without the three lowest grades, drawing the pupils from other primary schools, as high schools do; (3) that there is no objection to changing secondary schools without Latin (so-called *Realschulen*) into middle schools, if the local authorities so desire; (4) that in all middle schools tuition fees may be charged; while the eight years' elementary schools remain gratuitous; (5) that

attendance at these schools. In Saxony the intermediate school is known as the Higher Elementary School.

Higher Education

In this land of precise thinking and systematic administration there exists no such confusion as prevails in America, as to the status of institutions for higher education — the university stands unique and supreme. Heidelberg, the oldest, dates its establishment to 1385, and Berlin,¹ Munich, and Leipzig, to-day the three with the largest number of students, to 1809, 1826, and 1409, respectively.² Early in the nineteenth

as a rule middle schools shall not be coeducational, but that for boys and girls separate middle schools shall be established as soon as the number of pupils permits; (6) that the three upper classes in middle schools shall in no case have more than 45 students, the lower may have as high as 50; (7) that women may be appointed as principals of girls' middle schools; (8) that in small communities middle schools may prepare to assume the character of secondary schools if they teach Latin and possibly Greek." *

* Report of Commissioner of Education, 1910, p. 478.

¹ Berlin, with an enrollment of about 15,000, is the second largest university in the world, Paris alone exceeding it in size

² The complete list is: —

Heidelberg	1385	Freiburg	1457
Leipzig	1409	Tübingen	1477
Rostock	1419	Marburg	1527
Greifswald	1456	Königsberg	1544

century the equality of the four faculties — theology, law, medicine, and philosophy — was established. It is the prevailing custom for students to attend more than one institution, frequently four or five. The individual university does not command the allegiance which is given to our American colleges and universities, but students are rather attracted to particular professors and particular courses, and seek these wherever they are to be found. There is no prescribed length of course, each student deciding for himself when he shall present himself for his degree of Doctor of Philosophy, the only one granted by the German university.¹ The degree is issued by the particular institution, upon extended examination and the presentation of a printed dissertation, but the student's previous work at other universities is

Jena	1558	Breslau	1702
Braunsberg	1568	Göttingen	1737
Würzburg	1582	Erlanger	1743
Giessen	1607	Münster	1780
Strassburg	1621	Berlin	1809
Kiel	1665	Bonn	1818
Halle	1694	München	1826

See Friedrich Paulsen, "The German Universities," Longmans, Green, 1906, p. 443.

¹ Except that in the theological faculty there are still two academic degrees, the lower one of Licentiate and the higher one of Doctor.

given full credit. The students in all of the twenty-one universities of the empire number over 50,000 with the largest proportion of them in philosophy, and the others in law, medicine, and theology, in the order named.

The esteem in which the German universities are held is voiced by Professor Ladd, when he says that it is chiefly because they "most worthily realize the ideal of the highest free and scientific culture that they are confessedly superior to all others,—confessedly, on the part of the most thoughtful and well-informed educators under rival systems" . . . "for every university in Germany, by its theory and custom alike, undertakes worthily to realize this admirable ideal."¹

Vocational Education

Germany has gone far in establishing institutions of all grades for the furthering of vocational education, and to this is due in no small measure her present industrial and commercial supremacy.²

¹ George Trumbull Ladd, "Essays on the Higher Education," Scribner, 1899, p. 31. As an offset, read criticism of German universities by the Rector of the University of Munich, Professor Herman Paul, in Report of Commissioner of Education, 1910, p. 491.

² For the history of the development of the Prussian system of vocational schools, see "Verwaltungsbericht des Königlich Preuss-

For those children who have had no schooling beyond that of the *Volksschule*, continuation schools are provided, not only for the purpose of cultivating vocational efficiency, but also of reviewing studies already gone over, of sustaining and reënforcing interest in study, and of fixing good habits and contributing to moral living. These schools, enrolling in Prussia alone nearly a half-million pupils, are known as *Fortbildungsschulen*, and are of the three classes, *Industrie* (industrial), *Kaufmannische* (commercial), and *Landwirthschaftliche* (rural). Some of the rural schools give a limited amount of technical agricultural instruction, but their chief object is to extend and strengthen the elementary education of the rural people. Sessions are held, principally in the winter, on evenings and Sunday afternoons. Similarly, in the industrial and commercial extension courses, the sessions occupy evenings and Sundays and total six to ten hours per week.

Of institutions secondary in rank there are many of all kinds, industrial, agricultural, and

ischen Landesgewerbeamts," Berlin, 1910. Translated in part in Report of the Commissioner of Education, 1910, p. 301.

commercial. The higher grade technical schools demand six years of secondary instruction as an entrance requirement, whereas many of the other institutions "accept a still smaller amount of preparatory general schooling, but all of them insist on the pupils having gone through some practical training in their trades. The lower professional schools for artisans, foremen, etc., demand only the previous training of the elementary school."¹

There is a large variety of industrial schools, the chief groups being: (1) institutions approaching technical schools of higher education rank, having a stated course of two or more years; (2) *Baugewerkeschulen* (building-trades schools), admission to which in Prussia, for example, is upon the completion of elementary instruction, age requirement of 16 years, and employment for at least two summers in building or workshops; (3) *Handwerkeschulen* (also *Gewerbeschulen* and *Kunstgewerbeschulen*) for various handicrafts, pottery, tile making, etc., with courses extending over a year or semester with full-day teaching; (4) schools for various textile industries; (5) mining schools; and (6) schools of navigation.

¹ Lexis, *op. cit.*, p. 166.

Of agricultural schools of this rank there are four notable groups: (1) those schools having the character of *Realschulen*, of which there are a score in Prussia; (2) farming schools for direct training in practical agriculture; (3) winter schools, where the teaching is purely theoretical; and (4) schools for instruction in special branches, as, for instance, meadow cultivation, horticulture, dairy farming, bee culture, etc.

As to commercial schools, of this and other grades, there are many, widely distributed and of marked influence. "Saxony has well been termed the classic land for furnishing special instruction to the merchant class. Not in Saxony alone, but in other divisions of the Empire, mercantile schools have long constituted an important division in the systems of education."¹

The oldest of these institutions, known as middle or high commercial schools, is the *Oeffentliche Handelslehranstalt* in Leipzig, founded in 1830 by the Trade Schools Guild, and in 1888 taken under general supervision by the Chamber of Commerce. It has a three-year course in technical and general subjects, and admits students at the age of 14 or 15.

Higher education along vocational lines is also

¹ Cheesman A. Herrick, "Meaning and Practice of Commercial Education," Macmillan, 1904, p. 74.

extremely well worked out. Professional instruction in law, medicine, and theology forms, as we have noted, an integral part of the university work.

Technical instruction is given in technical high schools or polytechnica, of which there are ten in the empire, with an enrollment exceeding 25,000.¹ Training is given in all four technical departments: architecture, civil engineering, mechanical engineering, and technical chemistry. In general, students must be graduates of a secondary school, and they obtain, after an average attendance of four years, the diploma of Certificated Engineer.

As distinguished from these polytechnica, there is a variety of monotekhnical schools, each teaching the technique of a single art. These, known as high schools for special subjects, impart "the highest scientific education in their subjects," and demand the same previous schooling as do the universities.

As classified by Lexis,² they are, with dates of founding:—

1. Mining Academies: Berlin, 1770; Clausthal (Prussia), 1775; Freiberg (Saxony), 1766.
2. Forestry Academies: Eberswalde (Prussia), 1830;

¹ They are located as follows: Aachen, Berlin, Brunswick, Danzig, Darmstadt, Dresden, Hanover, Karlsruhe, Munich, Stuttgart.

² *Op. cit.*, p. 151 *et seq.*

Münden (Prussia), 1868; Tharandt (Saxony), 1811; Aschaffenburg (Bavaria), 1807; Eisenach (Saxe-Weimar), 1830.

3. Agricultural High Schools: Berlin, 1870; Bonn-Poppelsdorf (Prussia), 1847; Hohenheim (Württemberg), 1818; Weißenstephau (Bavaria), 1804.

4. Veterinary High Schools: Berlin, 1887; Hanover (Prussia), 1887; Munich (Bavaria), 1890; Dresden (Saxony), 1889; Stuttgart (Württemberg), 1890.

5. Commercial High Schools: Cologne (Prussia), 1900; Frankfurt (Prussia), 1901; Leipzig (Saxony), 1898.

6. High Schools of Art: Berlin, 1696; Düsseldorf, Cassel, Königsberg (Prussia), Munich (Bavaria), Dresden (Saxony), Stuttgart (Württemberg).

7. High Schools of German Army and Navy Administration: (1) Berlin; (2) Kiel; (3) Munich.

Education of Girls

Separate education of boys and girls is the preferred policy in Germany, but owing to its impracticability in the rural schools, two thirds of the children in the *Volksschulen* are in mixed classes. In the cities, however, less than half of this proportion is found.

In secondary education separate schools is the universal rule, and the schools for girls are of a distinctive character. For many years they were rated only as advanced elementary schools, or *Mittelschulen*. The first *gymnasium* for girls

was established in 1893 in Berlin and was followed by others. "In all these schools the curricula are planned to supplement the earlier training of girls, that they may graduate on a level with the boys of the gymnasium."¹ In order that they may accomplish this the course extends over ten years. The enrollment in the higher girls' schools is about two thirds of that of the boys.

Under act of August 15, 1908, Prussia established a new plan for the higher education of girls by which girls with three years of elementary school preparation are given a seven-years course from which they graduate at about sixteen years of age. Upon graduation from this grade of school three forms of higher education are open: (1) a two-years course in various subjects—educational psychology, hygiene, housekeeping, bookkeeping, political economy, etc.; (2) the seminary for those preparing to teach; (3) the *Studien-Anstalt*, an institution of *Realgymnasium* type.

Higher education of women has been persistently frowned upon by official Germany, although for some time women have been permitted informal attendance upon lectures. In 1903, for

¹ Russell, *op. cit.*, p. 132.

the first time, women were granted matriculation in a German university. This was in Munich, and since then other universities have conceded to women all academic rights, so that now there are more matriculated than non-matriculated women students in the German universities.¹

By way of summary of the more recent attitude of Germany towards its women, we may well quote from Professor Münsterberg.² "The efforts of this new Germany in the interests of the women have taken four different forms, four tendencies, which naturally hang together, but externally are sometimes even antagonistic. The first movement, which applies to the largest number of individuals, is that which tends to soften the hardships of the female wage earner, especially among the laborers; the second seeks to

¹ 1909-1910, Nonmatriculated	1928
Matriculated :	
Berlin	638
Munich	183
Göttingen	160
Heidelberg	142
Bonn	135
Total, with others	2324

²Hugo Münsterberg, "American Traits," Houghton, Mifflin, 1902, p. 133.

raise the character of the general education of girls in the higher classes; the third endeavors to open new sources of income to the better educated women of narrow circumstances; and the fourth has as its aim the clearing of the way for women of special talent, that they may live out their genius for the good of humanity."

CHAPTER VII

FRANCE

"The French are not deficient in sentiment. No one can know them even from their literature, or from the most superficial travel, — still more, no one can come to know them as personal friends, — without recognizing the deep, spontaneous genuineness of their emotional nature. This phase of their temperament as a nation is more pronounced, if possible, than the admirable intellectual one on which our consideration of the French universities has touched. Rather paradoxically, however, it is less evident in their educational surroundings and systems than almost anywhere else." — WENDELL, "The France of To-day," p. 46.

IN turning our attention from America and Germany to France, we turn from a certain indifference to systematization of schools to the spirit which has attempted to reduce to a correlated system the whole range of educational activity. France stands preëminent among the nations as the exponent of centralized authority, reaching out from the capital city into every school at the remotest crossroads. The result is a system of schools which, at least from the standpoint of beauty of administration as administration, challenges and receives the admiration of the world.

The frankly expressed aim is at uniformity of structure; the consequent danger is a uniformity of detailed management and method which may deaden all interest in the truest forms of education. That bureaucratic control has already seriously impaired the schools is freely asserted by foreign critics; as, for instance, by Dr. Draper, who says that French pupils are "trained for examinations and for routine, rather than for power."¹ At home a certain acceptance of this criticism is evidenced by efforts to introduce a larger measure of local authority and to take such measures in internal management as shall more positively encourage initiative and individuality. We are here concerned, however, with noting the structure of the schools as it appears to-day.

Infant Education

France is among the leading nations of the world in respect to the schooling of children of tender age, over a half million being thus provided for.² These schools are not, however, to be regarded as kindergartens, for they do not follow

¹ Draper, *op. cit.*, p. 14.

² Of the reported enrollment, 1908, of 631,287, 515,190 were in public schools.

the teachings of Froebel, but exist chiefly for social and economic reasons. They are primarily designed in the interest of the mothers whose household or business duties demand all their time, relieving them of the care of their young children — those from two to seven years of age. The hours at school are long, frequently from 7 A.M. to 7 P.M., and there is much work and little play. The teachers are women, most of whom are not specially trained. These infant schools are of two kinds: the *écoles maternelles* (maternal schools) and the *classes enfantines* (infant classes). The former are independent schools, supported only in the cities; the latter are classes attached to the elementary schools in those communities where it is impossible to maintain separate schools.

Elementary Schools

As in Germany, so here the elementary schools are not designed to prepare pupils for secondary work. The most complete elementary course covers nine years, but it is in but few communities that this complete course is available. In fact, most of the rural schools support only four years. The complete elementary school is known as the *école primaire*. This, it will be seen, is not to be

confused with the American use of *primary*, to indicate the earlier part of the elementary course. The *école primaire* is divided into two groups: the *école primaire élémentaire* (lower elementary school) and the *école primaire supérieure* (higher elementary school), with courses, respectively, of six and of three years. The lower schools receive their pupils at the age of seven, and divide their work into three grades of two years each, termed, in succession, the *cours élémentaire*, the *cours moyen*, and the *cours supérieure*. The work of the higher schools supplements that of the lower schools, but these schools are maintained in only the more able communities, and elsewhere are replaced by a modified form. This modification consists in attaching to the six years of the *école primaire élémentaire*, a sort of post-graduate year or two, known as the *cours complémentaire*. The public primary schools enroll close to five million pupils, and private schools add a million more.

Auxiliary Education

Institutions to the number of about 130 care for abnormal children. The enrollment of the

deaf exceeds 2000; of the blind, 1000; of the crippled, 500; and of the feeble-minded, 2000. The oldest of the schools for imbeciles is at Paris and was founded in 1812. Special schools and classes for the mentally defective in connection with the public school system have been but recently provided for. They are known as *classes et écoles de perfectionnement pour les enfants arriérés*, and were organized under laws and decrees of 1908 and 1909.

Secondary Education

Secondary education is provided by two forms of schools which vary chiefly as to the manner of their direction. The *lycée* is supported by the central government and is found chiefly in the cities. The *college* is supported by local communities, and seems to be taking on more and more the character of the higher primary schools.¹ Pupils enter either of these two secondary schools at an average age of nine and follow one of four optional parallel seven-year courses, — classical,

¹ "Although the colleges follow the same official programs as the lycées, few of them offer the full secondary course of instruction, so that they have formed a sort of inferior order of secondary schools, or a preparatory stage to the upper section of the lycées."
—Report of the Commissioner of Education, 1910, p. 413.

Latin-modern language, Latin-science, or modern language-science.¹ Few pupils enter from the *école primaire*, but come from private schools or from preparatory departments with a two-years course attached to the *lycée*. Provision is made for both day and boarding pupils, and upon the completion of any one of the four courses the degree of *bachelier* is awarded. This degree entitles the holder to certain privileges as to preferment in the civil service, and to admission to any faculty of the university. Thus the *lycée* is recognized as practically the only pathway to the field of civic employment and positions of trust and honor. The work of the *lycée* is accomplished not without the loss of a certain freedom and spontaneity, such, for example, as we meet in our American high schools. Hughes criticizes the *lycée* by saying that "no school in the world is so effective in suppressing individuality."² There are about twice as many *colleges* as *lycées*, and together they enroll some 100,000 students; more, however, in the urban *lycées* than in the more numerous but smaller *colleges*. In addi-

¹ This statement is not exact. See p. 231.

² *Op. cit.*, p. 215.

tion, the students in private secondary institutions number above 60,000.

Higher Education

Higher education is provided by universities, fifteen in all, grouped into a system, with the University of Paris as the center and leader. The University of Paris grew out of the cathedral school of Notre Dame somewhere between the years 1140 and 1170, and, with an enrollment fast approaching 20,000, it is beyond question the largest university in the world. The other universities are located at Aix-Marseille, Besançon, Bordeaux, Caen, Clermont, Dijon, Grenoble, Lille, Lyon, Montpellier, Nancy, Poitiers, Rennes, and Toulouse, with one also at Alger. Some have all four faculties: letters, science, law, and medicine.¹ Law attracts more students than any other two faculties together. Graduation from either course, which is four years in length, is marked by the degree of *licence*. Post-graduate courses are offered, leading, after prolonged work including

¹ A total, in 1908, of 13	Law	with	16,315	students	
	7	Medicine	with	7220	students
	15	Sciences	with	6258	students
	15	Letters	with	<u>6201</u>	students
Total, with pharmacy,			39,890	students	

the preparation and defense of two theses, to the degree of Doctor of Science or Doctor of Letters. At the University of Paris the degree of *agrégé* is also awarded, upon rigid examination.

In addition to these State universities, there are private, independent universities under clerical auspices, at Paris, Angers, Lille, Lyon, Marseilles, and Toulouse. There are also certain special schools of university rank, under government direction and support, the Collège de France, Practical School of High Studies, Museum of Natural History, School of Oriental Languages, École Nationale des Beaux-Arts, and others.

Vocational Education

In this sphere France is well abreast of modern effort. The *école primaire supérieure* has usually a combination general and vocational course. That is, the school has a general course of three years, with alternatives for the last two years of special courses in agriculture, commerce, or industry. There is, too, another group of schools of the same grade, under the control of the Ministry of Commerce and Industry. They are known as *écoles pratiques de commerce et d'indus-*

trie, and give a practical course of full three years in either industrial or commercial lines.

Of secondary rank, there are several *écoles nationales d'arts et métiers*, with a three-year course, and *écoles supérieures de commerce* with a course of not more than two years.

"The fact that the secondary schools exist primarily for the recruitment of the professional classes renders the likelihood of introducing vocational training into the schools more remote than ever. Such is the pressure imposed upon teachers and pupils alike by the examinations impending at the end of the course, that a subject not required by this test has small chance of fair treatment in the schools, especially as the examination period approaches. The lack of consideration devoted to the relative values of the various subjects militates decidedly against the prospect of any immediate change in this regard."¹

As to higher grade vocational education it is said that "Perhaps no country is so well provided as France with universities and educational institutions providing scientific instruction of the highest order."² Among these are the *École centrale des arts et manufactures*, at Paris; the *École nationale d'agriculture*, at Rennes; several

¹ Frederic Ernest Farrington, "French Secondary Schools," Longmans, Green, 1910, p. 383.

² Fabian Ware, "Educational Foundations of Trade and Industry," London, 1901, p. 221.

thriving polytechnics; and schools of commerce, of war, of mines, and of other technical branches.

Education of Girls

In the elementary schools coeducation is tolerated only in the rural schools; every commune of 500 or more inhabitants is obliged by law to provide separate schools for girls. In 1897 the total enrollment in mixed elementary schools was but 13 per cent.

Recognition of the needs of girls as to secondary education came comparatively late. In the words of Professor Farrington, "Of all the reforms in the field of secondary education that have been carried out under the Third Republic, the most significant has been the establishment of *lycées* for girls under the law of December 21, 1880."¹ The first of these to be founded was at Rouen. These schools admit girls at the age of twelve and give them a five years' course in two periods of three and two years, during the second of which electives are offered. Some 30,000 girls are enrolled in the *lycées* and *colleges* thus instituted.

¹ Farrington, *op. cit.*, p. 79.

In the universities, men and women students are on equal terms in all faculties and are accorded the same degrees. Women now constitute approximately 10 per cent of the total university enrollment.

CHAPTER VIII

GREAT BRITAIN AND IRELAND

"Popular education in England has been a slow growth, beset by enemies, or rather by friends who were so anxious to have the good work prosper in their own way that it has come near being torn in pieces of them. . . . But from a purely educational point of view it has reached a firmly established position in which rapid changes are improbable. Popular secondary education, on the other hand, although free from political complications, is still in the making." — LOWELL, "The Government of England," Vol. II, p. 295, p. 324.

THE very antithesis to France in respect to School Administration is to be found just across the Channel. In that country where "every man's house is his castle," the spirit of individualism has prevented the development of any such centralized system as is to be seen on the continent. To comprehend the complicated structure of the English schools is a difficult matter at best. This land of paradox—with its sturdy sense of individual rights locked within a rigid mold of caste—may be the better understood if we permit a few of her own writers to speak for her.

Says Mr. Graham Balfour: "We can see England businesslike and unphilosophical, somewhat lethargic in her prosperity, slowly realizing first the commercial advantages of education, and then the possibility of applying scientific methods to the process: great in self-government, yet delegating to the localities only those powers which she intends them to use; making a working compromise at every step, and triumphantly disregarding consistency in details; strong in her sense of duty, greatly proud of her ancient institutions, liberal in grants once her hand is opened. There are Wales and Scotland, to whom education is far more dear: Wales, in a newly born fervor for knowledge, producing, as it were by magic, order out of chaos; Scotland, thrifty, prosperous, and wise; with an ecclesiastical history 'the most perverse and melancholy in man's annals,' yet without a religious difficulty in her schools; having taught her children for centuries past to mind their book and get on in the world, and to be independent and upright—a lesson well learned at home and practiced with great success abroad. Last comes Ireland, poor and in subjection; passionately attached to her faith; lovable and un-

reliable and helpless; the child among nations; the Celtic genius, mysterious and unpractical, 'always bound nowhere under full sail,' abandoned for long to obsolete methods and inadequate instruction, because reform meant the calling up of many quarrels."¹

And Miss Burstall: "We have never eliminated our minorities, we have preserved feudal and social distinctions into an intensely industrial and democratic era; while the broad geographical distinctions of North or South, town and country, Celt and Saxon, are but the general indication of profound differences in the physical, intellectual, and spiritual conditions which inevitably influence educational needs. It would thus be impossible for any one type of school to satisfy the wants of the whole country."²

To the American it is difficult at times to think of the unorganized English schools in terms of appreciation, but we do well to keep in mind the caution voiced by Mr. Hughes: "This system is very close to the national life. There is but

¹ Graham Balfour, "The Educational Systems of Great Britain and Ireland," Oxford, 1903, p. xiii.

² Sara A. Burstall, "English High Schools for Girls," Longmans, Green & Co., p. 16.

little of the professional detachment of the continental school seen in England. In all these respects the system is characteristic of the people. To quarrel with it is to quarrel with the national character. In its lack of unity, its diversity, its tendency to compromise, its respect for vested interests, its remarkable variations of efficiency, it is English."¹

As already noted, the structure of the schools differs in the four different countries of Britain, so that we must consider each in turn.

ENGLAND AND WALES

Infant Education

England is the foremost nation in the world in its provision of educational facilities of preliminary grade. Over 2,000,000 children between the ages of three and seven are enrolled in the Infant Schools, which are "in reality ordinary schools for teaching the rudiments with some kindergarten attachments."

Elementary Education

Prior to 1870, elementary education was left entirely to the efforts of private individuals and

¹ *Op. cit.*, p. 63.

societies. In that year, Parliament achieved a certain measure of control through the offering of public funds for school use. This control has naturally extended itself and has been more clearly defined by successive parliamentary acts. There is a broad classification of elementary schools into "provided" and "non-provided." The "provided" schools are those established by public authority and are known, too, as "board" or "council" schools, and therein "no dogmatic religious teaching may be given." The "unprovided" schools are those established by private venture, being in fact chiefly parochial. They are also, rather ambiguously, known as "voluntary." They receive State aid only upon maintaining an acceptable standard as to buildings, equipment, and pedagogic work. Of the various denominational schools, the Church of England maintains over eighty per cent.¹ Pupils enter

¹ In 1908: Council Schools	7408	
Voluntary Schools		
Church of England	11,180	
Wesleyan	294	
Roman Catholic	1064	
Jewish	12	
Undenominational	602	13,512
Total		<u>20,920</u>

the elementary school at the age of seven and pursue a course normally of seven yearly grades known as "standards." The enrollment for England and Wales exceeds six million, and the percentage of illiteracy is lower than in America.

Auxiliary Education

The extent to which auxiliary education is administered is shown by the following summary:—

SPECIAL SCHOOLS, 1908	NUMBER	ENROLLMENT
For the mentally or physically defective . . (First established in 1892)	190	13247
For the deaf	47	3421
For the blind	39	1642
For epileptics	5	216

Secondary Education

Secondary education is chiefly maintained through independent endowed schools. "The variety of the English grammar schools baffles the ingenuity of the generalizer."¹ This diversity is due largely to the various forms of control ex-

¹ Hughes, *op. cit.*, p. 303.

exercised by the proprietors. The chief of these are five in number:—

1. Private adventure schools, controlled by private individuals or partners.

2. Those controlled by a committee representing subscribers not registered as a company.

3. Those controlled by a Limited Liability Company.

4. Those registered by royal charter, act of parliament, scheme of court chancery, or other legal instrument.

5. Those controlled by local public authority.

Of the boys' schools the greatest number are in the fourth and first groups; of the girls and mixed schools, two thirds are in the first group.

Secondary schools are not a link between public elementary schools and higher institutions. As Dr. Draper rather strongly puts it: "There is no educational mixing of classes, and no articulation or continuity of work. The controlling influence in English politics is distinctly opposed to universalizing education, through fear of unsettling the status and letting loose the ambitions of the serving classes. The placidity of the so-

cial organization seems of more moment than the strength of the Empire."¹ Students enter the secondary schools at from eleven to fourteen (or preparatory departments at as early an age as seven) and remain to the age of eighteen or nineteen, proceeding then to the army, the university, or a profession.

What are known in England as the great "public schools" are far different from those to which the term applies in America. These are the high-class secondary schools, characterized by Dr. Harris as "the conservatory of the higher caste of English society and exciting our admiration at the completeness of their equipment for this purpose." They are endowed, charge high fees, and accommodate both day and boarding students. They are some forty in number, of which seven, according to Sharpless, "would be included by the claims of history and character in every list of public schools."² These seven are, with the dates of their founding: Winchester, 1387; Eton, 1441; Shrewsbury, 1551; Westminster, 1560; Rugby, 1567; Harrow, 1571; Char-

¹ *Op. cit.*, p. 13.

² Isaac Sharpless, "English Education," Appleton, 1892, p. 106.

terhouse, 1609.¹ Besides these there is a large number of modern public schools of vigorous growth.

The total enrollment in all secondary schools exceeds 140,000. This does not include a tenth as many more who attend the higher elementary schools, a form of day school continuing the work of elementary education and ranked, according to law, together with the secondary schools, as "higher" schools, as distinguished from "elementary."

Higher Education

The typical institution for higher education in Great Britain is the university, composed of a group of individual colleges or halls.² The University of Oxford dates from 1167, and was probably founded by students migrating from the

¹ There is a large number of books dealing with individual schools, some treating the subject historically, others by way of personal reminiscence. Among them are: Lionel Cust, "A History of Eton College," Scribner's, 1899; Arthur F. Leach, "A History of Winchester College," Scribner's, 1899; H. C. Maxwell Lyte, "A History of Eton College," Macmillan, 1899; W. H. D. Rouse, "A History of Rugby School," Macmillan, 1898; series of handbooks to the "Great Public Schools," George Bell and Sons, — Charterhouse, Rugby, Eton, Harrow, Shrewsbury, Winchester, St. Paul's, Westminster, Merchant Taylor, etc.

² "This English idea that a university is a mere multiplication of colleges is so firmly fixed that the very word is defined as 'a col-

famous University of Paris. It consists of twenty-one colleges and four halls, and together with Cambridge, founded in 1209 by emigration from Oxford, with seventeen colleges and one hall, enrolls some 7500 students. This enrollment is exceeded by the single university of London, founded in 1826 and reorganized in 1858. It consists of twenty-nine colleges and schools and grants the degrees of Bachelor of Science and Doctor of Science. The other universities as a rule grant only the Bachelor of Arts

lection of institutions of learning at a common center.' In the daily life of the undergraduate, in his religious observances, and in regulating his studies, the college is supreme" (p. 8).

"The English college, roughly speaking, is a medieval hall supported by a permanent fund which the *socii* or fellows administer" (p. 223).

"The real founder of the English college was Walter de Merton. In 1264, Walter provided by endowment for the permanent maintenance of twenty scholars, who were to live together in a hall as a community; and in 1274 he drew up the statutes which fix the type of the earliest English college" (p. 224).

"The first college to develop regular undergraduate instruction within its walls was 'S. Marie College of Winchester in Oxford,' founded in 1379, by William of Wykeham" (p. 226).

The above quotations are from John Corbin, "An American at Oxford," Houghton, Mifflin, 1902, in which, too, will be found many interesting pages of personal reminiscence. See also Rev. W. Tuckwell, "Reminiscences of Oxford," London, 1907, and Hugh de Sélincourt, "Oxford from Within," Chatto and Windus, 1910.

and Master of Arts. They are: Durham, Victoria (Manchester), Leeds, Liverpool, Sheffield, Birmingham, University of Wales. "The provincial universities are quite unlike Oxford and Cambridge, both in aims and methods. In many ways they resemble more nearly the Scotch universities, and, no doubt from a similarity of conditions, the universities in America, especially the newer and smaller ones. In the first place, they are not collections of colleges, and do not undertake to foster the common life in an academic community which is the dominant note by the Isis and the Cam. . . . The standard of general education is not so high as at Oxford or Cambridge, and there is a more prevalent tone of direct utility."¹

The student's life is lived at his college, and it is around his college that his loyalty centers. Here he studies with a group of his fellows under the guidance of a tutor for a number of years, ranging from three to five according to his ability and industry. To complete his work he must pass rigid examinations at the university,

¹ A. Lawrence Lowell, "The Government of England," Macmillan, 1908, p. 351.

and it is from the university that he receives his degree.

Vocational Education

England cannot be said to rank high in its provision of technical education. Said the Royal Commission, in 1884, "we seem particularly deficient as compared with some of our foreign competitors; and this remark applies not only to what is usually called technical education, but to ordinary commercial education which is required in mercantile houses." Much has been done in the way of evening continuation schools,¹ there being several thousand of these, but there is little of specialized vocational instruction given. There is, however, a growing movement toward the establishment of vocational schools of elementary and secondary rank. We may instance London, where these schools are of three types: trade schools for girls; technical day schools for boys, giving a special training in certain trades, and preparatory trade schools for boys. The schools of the first and second groups provide a two-year course for pupils entering at fourteen or

¹ See M. E. Sadler, ed., "Continuation Schools in England and Elsewhere," Manchester, 1908, for bibliography.

fifteen, while those of the third give a longer course, but admit the boys at a somewhat earlier age. In the plane of higher education the vocations are already well represented. The University of London supports a faculty in economics and political science, including commerce and industry, and provides courses leading to collegiate degrees. Similar courses have been developed in the Liverpool School of Commerce, in Manchester and Birmingham Universities, and in other institutions. There is also liberal provision for training in the professions, as well as in agriculture, art, and technical lines.

Education of Girls

In the elementary schools, sixty-five per cent of the classes are mixed; in the secondary schools, separate schools are the rule, though in Wales they are largely coeducational.

In 1871 was founded the National Society for improving the Education of Women of all Classes, which later became the Women's Education Union. It had for one of its main objects the establishment of good public day schools for girls, in contradistinction to boarding schools.

The present-day secondary schools for girls, which Miss Burstall classes in four types,¹ do not by any means give complete secondary education, the leaving age for most girls being sixteen or seventeen.

In higher education the opportunities for women are constantly increasing. The first institution to give them a thorough professional training was Queen's College, in London, established in 1848 with the special purpose of preparing teachers and governesses. Although the oldest of the English female colleges, it is not the type of the present college. It was followed by Bedford College (London) in 1849, by Girton (Cambridge) in 1873, and by several others. In 1874, the London School of Medicine for Women was founded. In 1878, London University opened all its grades to women. The older institutions are more conservative, however. At Oxford, where there are five colleges for women, and at Cambridge, where there are two, no degrees are granted women, but they receive

- ¹ 1. Private schools, day or boarding.
2. High schools proper, private, or proprietary.
3. Middle schools, public for financial reasons.
4. New semipublic, costly, boarding schools.

a certificate that they have completed a course equivalent to the B.A. degree.

SCOTLAND

Some 800,000 pupils are enrolled in the elementary schools, nearly all of which are coeducational. The secondary school is, as a rule, continuous with the elementary and leads, in turn, directly to the university. Schools providing a three-year course of secondary education are called "intermediate"; a five-year course, "secondary."

"For some years the Education Department has been steadily developing a great scheme of Secondary Education in Scotland. It has perforce proceeded slowly and gradually. Its whole aim was not apparent in the first circulars and minutes. But now the end is in sight, the full development of the scheme is at hand. It will find Scotland in the possession of means for Higher Education such as she never before could boast. Buildings and equipment are being supplied; teachers are being educated and trained; and the capable child in the remotest part of the country has open to him a clear path from the primary school to the University or the Technical College. All this is the result of the steadily pursued policy of the Education Department."¹

¹ John Kerr, "Scottish Education," Cambridge, 1910, p. 407. See also John Strong, "A History of Secondary Education in Scotland," Oxford, 1909; contains also considerable reference to elementary and higher education.

Much has been done in providing continuation classes for pupils above the age of fourteen, where the crafts or industries of the locality are reënforced, as well as advanced classes for commercial training. Higher education is given in four universities. These are: St. Andrews, the oldest, founded in 1411, with which Dundee College was affiliated in 1897; Aberdeen, on two foundations, King's College in 1494, and Marischal College in 1593; Glasgow, since 1893, including Queen Margaret College for women; and Edinburgh, the largest of all, which replaces the old college, founded in 1582 by James VI. More than twice as many students, in proportion to the population, are in university attendance in Scotland as there are in England.

IRELAND

Ireland enrolls over 700,000 children in its elementary schools, and is steadily advancing the quality of instruction, which in the past has not been of especially high grade. The percentage of pupils' attendance and the percentage of trained teachers have both been steadily rising. In secondary education, progress has been made

during the past thirty years through the work of the Intermediate Board, appointed to effect the State organization of this grade of schools. Two important services are credited to this board. "It has practically, if not actually, called into being Catholic secondary education, and it has given an immense impetus to the intermediate education of girls."¹ In higher education, the University of Dublin is the oldest of several institutions. It is now entitled the National University of Ireland and has an enrollment, including women, of over 1000.

¹ Report of Commissioner of Education, Washington, 1910, p. 566.

CHAPTER IX

OTHER COUNTRIES

"To do its best work for a child, schooling must be planned as part of the general scheme of his education; though education must not, conversely, be regarded as all a strict schooling. And everywhere, in all stages, at home and at school, education must be dominated by simplicity, thoroughness, and serenity." — ALLEN, "Home, School, and Vacation," p. 24.

THE size and the importance, politically and educationally, of the four countries which we have thus far considered are such as to justify a much more extended description of their school structure than the limits of our present study have permitted. Although there are other nations which have worked out to a high degree of success the problems of education, we are obliged to consider them in even smaller compass. We shall outline the chief features in the school organism: first, of the other principal countries of Europe; second, of the more important dependencies of England; third, of the leading republics of America other than the United States;

and fourth, of the two foremost oriental nations. Within each group the alphabetical order is followed.

I. EUROPE

Austria

Infant Education.—Some 50,000 children between the ages of four and six are in the kindergarten. The first kindergarten was opened in 1863, and this grade of school was recognized as a part of the educational system in 1872.

Elementary education is given in the *Volkschulen*, with a five-year course, followed by *Burgherschulen* with three years additional. Classes for the mentally deficient have been conducted since 1892.

The *secondary* schools are modeled after the German and are grouped into *Gymnasien* and *Realschulen*, the former of eight years and the latter of seven, enrolling some 150,000 students.

Higher education is provided by eight universities, the largest being Vienna, founded in 1365, and enrolling 9000 students.

There is also a system of *vocational* schools,

both technical and commercial, of the three grades: continuation schools, middle schools, and higher schools. Of these last there are eight polytechnica and several professional schools.

Belgium

Infant Education.—Kindergartens have existed since 1842. To-day, more than one quarter million children, between three and six, are enrolled in these schools.

Elementary schools are well organized, in accordance with the law of 1895, and cover the ages seven to fourteen.

Of *secondary* schools, private and public, there are twenty *athénées royales*, seven *colleges communaux*, and eight *colleges patronnés*.

Higher education is provided in four universities, the largest being Liege, founded in 1817. Women have been admitted to the universities since 1880.

Vocational education is part of the general system. Belgium is "generally credited with having founded the first commercial institute of true university rank¹" (Antwerp). There are

¹ Herrick, *op. cit.*, p. 128.

some dozen institutions of highest rank doing work along technical and professional lines.

Denmark

Elementary schools extend from six to eight years.

The *secondary* schools were reorganized in 1903, so that there are now Middle schools of four years, followed by two varieties of *Gymnasia*, a three-year Latin and a one-year *Reale*. Denmark is characterized by a form of continuation school known as the *Folkehöjskoler* (People's High School), the first of which was established in 1844. There are now over seventy of these. They are not considered part of the State's system, but receive State aid. They charge a tuition fee covering board and lodging as well as instruction. They are designed for adults who have had an elementary schooling and desire advanced instruction, cultural and technical.¹

The *University* of Copenhagen was founded in 1479, enrolls about 2,000 students, and since 1875 has admitted women to all the faculties except theology.

¹ For an interesting account of these schools, see Chap. 17 in M. E. Sadler, *op. cit.*

Greece

Elementary schools are of two grades: the *Demotic*, lower, of four years, and the *Hellenic*, higher, also of four years.

The *secondary* schools are *Gymnasia* of six years.

The *National University* is at Athens. It was founded in 1837, and its enrollment exceeds 2500. There are government trade schools at Athens and Patras; also the Polytechnicon Mez-zovin, devoted to painting, sculpture, and mechanics.

Hungary

There are *infant* schools for children from three to six.

The *elementary* schools are divided into three grades: (1) the elementary; (2) higher primary, diverging at about the sixth year to vocational courses of three years for boys and two years for girls; (3) burgher, connecting with the fourth elementary year, a six-year course for boys and four years for girls.

Secondary education is provided by eight-year, coördinate *Gymnasien* and *Realschulen*.

For *higher* education there are three universities, one polytechnicum, agricultural schools, law academies, etc.

Italy

Infant education is provided in the *asilo*, for pupils from three to six, in which are enrolled some 400,000. The first kindergarten was established in 1850, and the kindergarten spirit dominates most of the *asili*.

The *elementary* school is five years in length, divided into an inferior section of three years and a superior of two.

Secondary schooling follows immediately upon the elementary course and consists first of the *ginnasii*, of five years, and then the *licei*, of three. Graduation from the *licei* admits to a university. Both grades together enroll about 50,000.

The *universities* are famous, Bologna dating to 1119 and Padua to 1222. There are twenty-one in all, seventeen national and four free. Naples (founded 1224) has an enrollment of over 6000, and Rome (1303) of over 3000. Several of the universities, however, have no arts faculty. The course is four or five years, leading to degrees of doctor in medicine, law, etc.

Vocational education is given considerable attention, especially in higher grades. Of secondary rank there are several *scuole tecniche* (technical institutes), having a four-years course, the first half of which is general, and the latter half specialized into departments. Of higher grade are the superior institutes, — agriculture, veterinary medicine, social science, fine arts, etc., — a score or so in number.

In the elementary schools coeducation prevails. Beyond that point, there is little provision for girls — “higher education is not in Italy as yet a popular question.”

Netherlands

There are both public and private *kindergartens*, with a total of about 125,000 pupils.

Elementary schooling is of six to eight years, with over one third of the pupils attending private institutions supported by the State.

Secondary education is given in the higher burgher schools, in which a four-year course succeeds the elementary, and in *gymnasia* of the German type.

There are four universities, all nearly three

hundred years old. Leyden is the oldest (1575), and the largest (1500 students). In 1880, the first woman student was enrolled in the university of Amsterdam, although the right to enter had never been formally denied to women.

Norway

Elementary schooling is urban and rural. The former gives in three divisions a total course of seven years, the latter gives only the two lower of these three divisions. Classes for the mentally deficient were established in 1892, and there are now ten auxiliary schools and eight reformatories.

Secondary schooling is a continuation of the elementary and consists of two divisions, the middle schools of four years (admitting from the fifth elementary-school year), followed by the *gymnasia*, of three years.

Higher education is provided by a single university at Christiania, founded in 1811, and enrolling 1500. It has a four-year course in all faculties except medicine, which extends two years further.

Girls are now securing recognition in secondary schools. Women have been admitted to the university since 1882.

Portugal

Infant schools of the maternal type enroll pupils from three to six years of age.

The *elementary* course is of four years.

The *secondary* school is a continuation of the elementary, and is of two kinds, the central *lycée*, of seven years, and the national *lycée*, of five years. Either course prepares for the university.

Higher education is provided in the University of Coimbra (1288), with 3000 students, and in several scientific and polytechnic academies.

Russia

Little attention is paid by the State to elementary education, that being left to the church and private interests.

There are a few *kindergartens*, some dating back a quarter century.

The *elementary* schools are of two grades: the primary schools, a four-year course, and the district schools supplementing these. Some of the "town" schools, belonging to this supplementary grade, have a six-year course.

Secondary schools are classical, — preparing for the university, — or *Real*. The full *gymnasium*

course is eight years, but there are many *progymnasia*, carrying only the first four years. In all, over 300,000 pupils are enrolled.

There are nine *universities*. The oldest is Jurjew (formerly Dorpat), founded in 1632; and the largest are Moscow and St. Petersburg, each enrolling upward of 8000 students.

Vocational schools parallel the regular schools, from artisan schools of elementary grade, training skilled workers in village industries, through technical schools of secondary rank, training skilled designers and mechanics, to numerous polytechnical and other higher grade institutes and schools.

Where possible, *girls* are taught in separate classes; in some cases, to accomplish this, the girls go to school half the day, and the boys go the other half. In 1870, the girls' *gymnasia* and *progymnasia* were made uniform with the boys' in government and program. In the universities, courses in many departments are conducted especially for women.

Spain

The *elementary* and *secondary* school systems of Spain have been characterized as "excellent on paper but badly carried out."

The secondary "institutions" prepare for the universities.

The *universities*, ten in number, are centuries old, and well attended. Salamanca dates to 1243. Madrid (1508) is by far the largest, with an enrollment exceeding 5000.

Sweden

Infant education is of the maternal rather than kindergarten type. There are over 5000 infant schools, called *Smaskolar*, which prepare for the elementary grades.

The *elementary* schools are the *Volkskolar*. The usual course is six years, with occasional continuation courses of one or two years.

Secondary education is given in schools of several grades, viz.: (1) higher, or complete, of nine years; (2) lower, of from six to three years; (3) pedagogics, of less than three years. The pupils enter at nine years of age and are admitted to the university upon final examination from a complete school.

The *universities* are four in number and are of the German type; two are State and two private. The oldest and largest is Upsala, founded in

1477, with an enrollment approaching 2000. A six- to eight-year course leads to the degree of licentiate in philosophy.

There are three grades of technical schools: the lowest, in the form of continuation schools; the elementary, for graduates of the *Volkskolar*; and the high, both polytechnic and special. There are now more than thirty *Folkhogskolar*, people's high schools, first imported from Denmark (*q.v.*) in 1868, giving a course of "human and civic as well as scientific and practical education," to adults of eighteen years and over who have completed the elementary course.

Sweden is the home of manual training instruction. A complete course of tool work for boys was formulated and by 1877 extended to the entire system of folk schools. The Sloyd Seminarium was established in 1874, at Nääs, and has been the "backbone of the Swedish system."

The elementary schools are commonly co-educational. Girls are not admitted to public secondary schools. Women have been admitted to the universities since 1870.

Switzerland

Infant schools are chiefly urban, receive pupils from four to six years, and are kindergarten in spirit. They are, however, mostly under private auspices.

Elementary education is provided in schools of two grades: *primary*, for pupils of from six to ten, and *higher primary*, or general continuation schools. Over 600,000 pupils receive elementary schooling. Classes for mentally deficient have been conducted since 1892. Auxiliary schools in 1907 numbered 7 for the blind, 15 for the deaf and dumb, 25 for the feeble minded, and 37 reform schools.

Secondary schools are of two types: the *Sekundar-Schulen*, similar to the American high school, and the other modeled after the German *Gymnasium*.

There are six *universities*, on the German pattern, with the four faculties complete in nearly all of them. The oldest is Basel, 1460; the largest is Berne with over 2000 students.

Vocational.—Of elementary grade there are continuation schools, industrial, commercial, agri-

cultural, and domestic science. Of secondary grade there are schools in very great variety, both general, industrial, and special trade schools. For graduates of these there is the magnificent Polytechnic at Zurich.

Coeducation prevails throughout the elementary grades and, with but few exceptions, in the secondary schools. Women have been admitted to the universities since 1868, and now constitute at least one quarter of the enrollment.

II. ENGLISH DEPENDENCIES

Australia

School organization, while differing in details, has much in common throughout the States which make up the commonwealth.

Infant schools, with a two-year course, are found in New South Wales and Western Australia.

Elementary schools have five-year courses in South Australia, and six or seven in the other States.

Secondary schools are high schools continuing the work of the elementary school with a course of three or four years. There are no State second-

ary schools in South Australia or Western Australia.

There are four universities, Adelaide, Melbourne, Sydney, and Hobart. Larger than any of these is the neighboring University of New Zealand.

There are many technical schools of advanced grade, among them the School of Mines at Adelaide and the Technical College at Sydney. Four of the states have established agricultural colleges.

Canada

With the exception of Quebec the various provinces of Canada have a similar school organization, of which Ontario¹ serves well as a type.

The *elementary* school consists of four "forms" of two years each, with a continuation form of one or two years in some places.

The *secondary* school is a "high school," following directly upon the elementary school, and leading in a four-year course to the university.

Of the eight *universities* in the Dominion, Dalhousie, at Halifax, is the oldest (1818), and Toronto is the largest (over 2500 enrolled).

¹ For historical sketch see Herbert Thomas John Coleman, "Public Education in Upper Canada," New York, 1907.

III. AMERICA

Argentine

Elementary schools consist of six grades of one year each. There is a school attendance of about 600,000.

Secondary education is given in *colegios*, between twenty and thirty in number, with a five-year course, chiefly for those intending to follow professional careers. Pupils enter at about the age of twelve.

The *universities* are three in number: Cordoba, founded in 1613; Buenos Ayres, with nearly 3000 students; and La Plata, recently established. They are national in government and support and resemble the French universities in organization.

Vocational training receives some attention. There are two public industrial schools for boys, who enter with four years of elementary work and follow a six-years course, the last two years of which lead to a special trade. There are a few commercial schools of elementary grade, both day and evening, for men (four-years course) and for women (three-years course).

Girls are admitted to the *colegio* on equal terms

with boys, but the prevailing prejudice against coeducation prevents many girls from attending. There are two secondary schools, *liceos*, for women only.

Bolivia

By the law of 1895 *elementary* schooling is provided in three cycles: infant, of two grades; elementary, of three grades; and superior, of three grades.

Secondary education is given in eight colleges, five clerical institutions, and five private lyceos, in all accommodating some 3000 students. The course is of six years and leads to the degree of Bachelor of Science or of Letters. *Higher* education is provided by seventeen institutions with 700 students. The course in law is five years; of medicine, seven years; of pharmacy, four years; of theology, four years. There are, too, schools of mines and of commerce and of industrial arts.

Brazil

Each State has an independent system, but all follow a common pattern.

The *elementary* schools have six-year courses with a supplementary two years.

Secondary schools have a seven-year course and lead into the higher schools.

Higher education is provided by twenty-five special faculties, schools, institutes, etc. There are no true universities.

Trade schools are already established in more than half of the States.

Separate schools for *girls* are required.

Chile

The *elementary* course is six years, given in schools one fifth of which are private.

Secondary education has been characterized as the "best in South America." There are about forty *liceos* for boys and thirty for girls. Pupils enter at twelve years of age, and follow a preparatory course of two years and a humanities course of six years.

The *University* of Chile (1743) has seven faculties, with about 1000 students. There is also a prosperous Catholic University at Santiago.

There are several *commercial* schools with admission requirements the same as for the liceos; also a school of Mechanic Arts, at Santiago, and agricultural and technical schools.

Colombia

In consequence of legislation of 1908 there has been a revival in interest in elementary schools, in which a quarter-million pupils are now enrolled.

There are numerous secondary schools of the *college* type.

There are four universities, at Bogota, Antioquia, Popayan, and Cartagena.

Ecuador

Ecuador has a school enrollment of nearly 100,000. There are over 1000 elementary, 35 secondary, and 9 higher educational schools. The chief seat of learning is the University of Quito, with four faculties—law, science, medicine, and philosophy and letters.

Mexico

There is a well-planned system of *elementary* schools of six years, enrolling about 700,000 and some forty *secondary* schools of four or five years.

The only *higher* institutions are professional in character, "institutes" or "schools" of medicine, engineering, agriculture, commerce, administration, etc.

Uruguay

Elementary education is being given rapidly increasing attention.

Secondary schools enroll about 3000 students.

The *University* of Montevideo is at the head of the educational system, with faculties in law, medicine, arts, agriculture, mathematics, and social sciences.

Venezuela

Elementary school enrollment is meager.

There are 57 *secondary* schools and 54 national colleges. Of the latter, some have a two-year preparatory course, then four years leading to a bachelor's degree.

Higher education centers in the University of Los Andes, at Merida, and the National Academy of Fine Arts, the School of Arts and Trades, and the Central University, all at Caracas.

IV. ASIA

China

Prior to 1905 there was no system of elementary education. In that year China began the foundations of a modern system based upon

occidental models.¹ The imperial decree of September 3, 1905, abolished the historic system of State examinations and outlined a series of four grades of schools: (1) primary, of five years; (2) common, of four years; (3) middle, of five years; and (4) provincial college, of two or more years. Overtopping all is the University of Peking, an imperial institution with a large proportion of western instruction. "China went into this great work of the education of a quarter of the population of the globe without proper prevision or provision."² Nevertheless, elementary and secondary schools are magically springing up throughout the Empire. In the province of Chefu there are a dozen middle schools and colleges at Tientsin, Shantung, and other centers.

Japan

Infant Education.—The first kindergarten was established in Tokyo, in 1876. Although there are some 40,000 children in kindergartens, these do not form part of the national educational

¹ For historical sketch, to 1902, see Robert E. Lewis, "The Educational Conquest of the Far East," Revell, 1903.

² Charles F. Thwing, "Education in the Far East," Houghton, Mifflin, 1909, p. 155.

system. Says Professor Kikuchi: "The kindergarten is still a question with us, some educationists contending that it is prejudicial to the development of children, while others contend that there can be no such prejudice if it is properly conducted."¹

The *elementary* schools are of two grades: (1) the *ordinary* schools, taking children over six, and covering a six-year course; and (2) the *higher* schools with a course of two, occasionally three, years. The first school for the blind and the deaf and dumb was established in Kyoto, in 1878. To-day there are several of these institutions, both public and private.

The *secondary* schools are of two grades, the *middle* schools and the *higher* schools. The *middle* schools follow the six years of elementary, and give a course of five years — a few add a year to this. The *higher* schools follow the middle school course and add three years, preparing for the university.

The *universities* are two — Tokyo and Kyoto, both imperial, comprising several separate colleges with three- or four-year courses. There are also

¹ Dairoku Kikuchi, "Japanese Education," London, 1909, p. 86.

post-graduate courses. Tokyo enrolls about 6000 students.

Vocational education is given much attention. There are many technical *supplementary* or *apprentice* schools, enrolling pupils who have completed the *ordinary* elementary curriculum. By far the greatest number of these specialize in agriculture, the others dealing with fisheries, commerce, and technological subjects. Of secondary grade there are two groups, known as class A and B. In agriculture, these give to farmers a scientific and practical training in class A, and in class B a more elementary course of instruction. Technological and commercial schools are similarly classified. The courses are of three or four years, and the admission requirement is the completion of two years of the higher elementary or of the middle school. Vocational instruction of higher grade is given to graduates of the middle schools in three special colleges. (These are not to be confused with the colleges of the university, two in commerce and one in agriculture.) Over one quarter million students are enrolled in the vocational institutions of all grades.

In the elementary schools *coeducation* is usual.

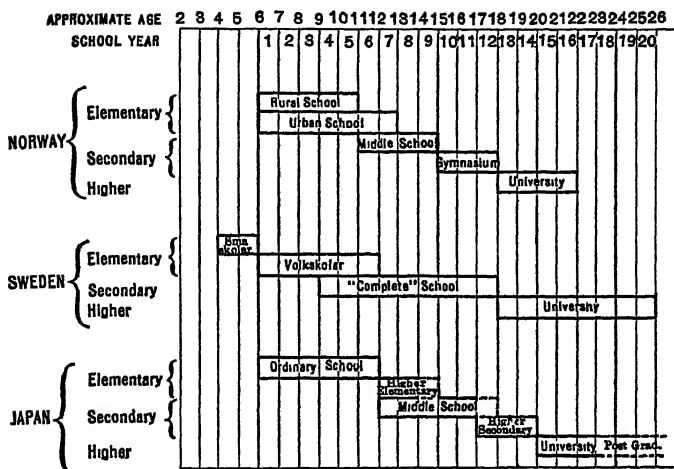
Beyond that point the education of boys and of girls becomes separate and distinct. There are high schools for girls, giving graduates of the ordinary schools a four-year course with supplementary courses of one or two years in some schools. Beyond this there is no governmental provision for the higher education of women. There is one "so-called" women's university at Tokyo.

CHAPTER X

REVIEW

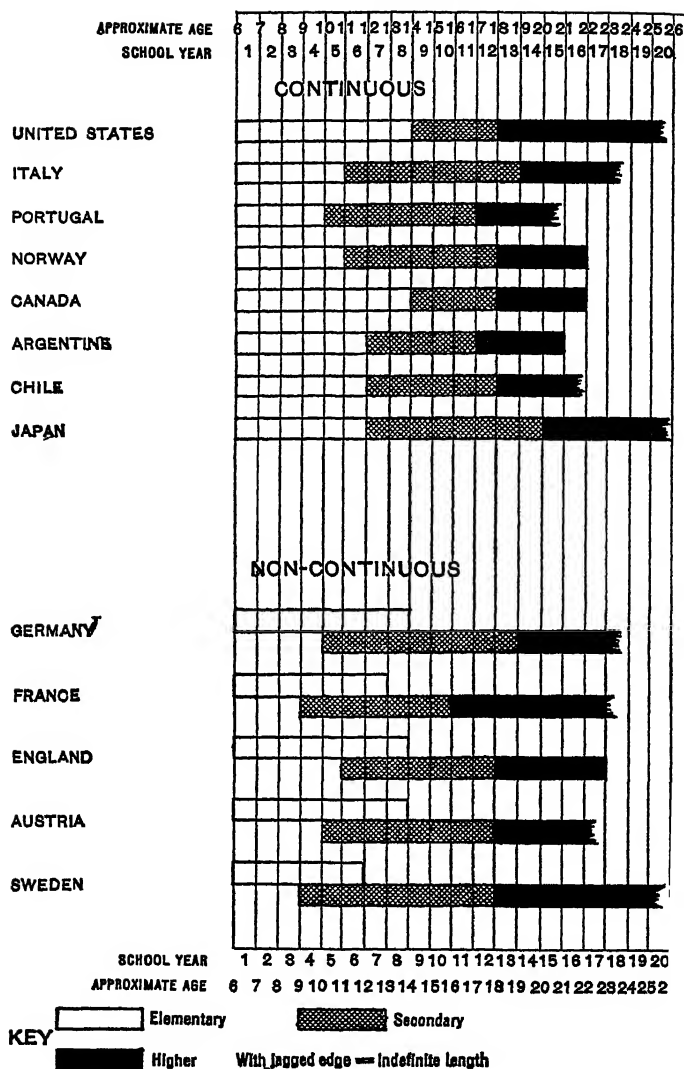
"The inward life, the real life, the animating and formative life of a people is infinitely difficult to discern and understand."
—HENRY VAN DYKE, "The Spirit of America," p. 8.

BEFORE leaving this study of the organic structure of the school systems of the world's nations, we shall do well to gather into more compact compass the salient features of each. Doing so, we shall be the better enabled to recognize their chief points of similarity and difference. The relation of the three broad grades of educational institutions, one to another, is best shown by means of graphic representation (pages 158, 159). Only the more important countries having distinctive educational systems, are considered, and in each case only the traditional types of schools are indicated; that is, no reference is made to auxiliary, special, or vocational schools. Also it is to be noted that the schemes represent the normal or best conditions. For instance, the Germans consider that their *Volksschule* consists normally of eight years, and yet, as a matter of fact, a majority of these schools



do not carry the full number of grades. In this diagram, too, all infant education is included within the elementary group, and the school years are reckoned from the beginning of the elementary period.

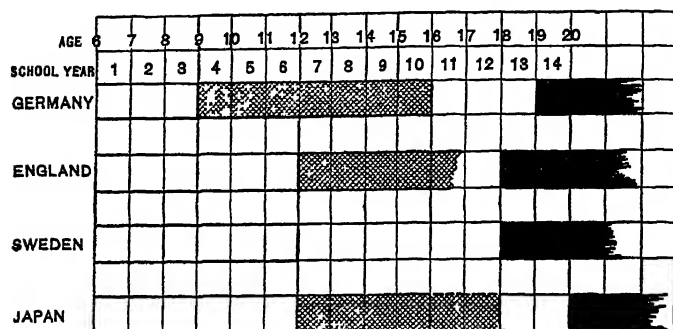
The most striking point of difference in these various systems is the relation of the elementary to the secondary schools. We may immediately group the systems into continuous and non-continuous, according to whether the pupils in the secondary schools normally enter by way of the elementary school, or whether the secondary school parallels the work of the lower grade school into some of the elementary school years. This is brought out by the following diagram : —



Concerning the education of girls and women, we have seen that marked differences of policy characterize the various nations. In the elementary schools Russia makes special effort to segregate, France and Germany maintain separate schools wherever possible; but in all the other countries coeducation is the general practice. As to schools of secondary grade: Sweden provides none for girls; the United States, Switzerland, and a few other countries usually coeducate: Germany, France, England, Russia, Japan, and others are quite definitely committed to segregation. In the colleges and universities women are admitted practically on equal terms in the United States, France, Sweden, and Switzerland; they have gained substantial concessions in Germany, England, and Russia; in the other countries little or no provision is made for them.

In at least four countries — United States, France, Russia, and Switzerland — women may get, under State auspices, a continuous education from the elementary school through the university. In most of the others, however, there is a hiatus between the secondary school and the university which must be supplied by private institutions.

The extent of this lapse is shown in the case of the leading countries: —



Even as we note in formal manner these points of similarity and contrast in school structure, we are impressed by the fact that to do so falls far short of telling the whole story. Nor could the shrewdest observer and most accurate reporter tell that story in a library of volumes. Our diagrams and meager summaries are but the rough plans and specifications; the architectural details, the finishing embellishments, and the encompassing atmosphere defy complete description. No school system is the work of a day, neither can it be comprehended in a day; certainly not by one who is foreign to the people who have evolved it. We step into a foreign

land, sojourn awhile, vaguely sense the national spirit and purpose, and then attempt in a few words to characterize its institutions. But our cleverest epigrams fail to do justice; indeed there is danger that, unwittingly, they inflict injustice.

It is with some temerity then that we review the schools of the nations in terms of brief generalizations.

Germany stands for order, precision, singleness of purpose, and certainty of accomplishment. Imperial strength and military, industrial, and commercial ascendancy are her utilitarian aims; exact and exhaustive scholarship is her cultural ideal. The efficiency of her schools is only to be called in question when we challenge the validity of her caste system. It is a serious reflection that "there seems no adequate provision for the poor clever boy to pass from one school to another of a higher kind."¹ "Not one boy in 10,000 finds his way from the highest class of the elementary school into the *Gymnasium*."² However, forces within the empire are striving to remedy this de-

¹ William H. Winch, "Notes on German Schools," Longmans, Green, p. 13.

² Russell, *op. cit.*, p. 135.

fect, and the ultimate outcome must surely be a victory for democracy.

In France, education is a national affair. It is recognized as a national interest, and hence the government assumes toward it entire responsibility, and exercises over it a complete and detailed authority. This centralization is by no means confined to educational administration, but extends to all departments; the instinct for it seems ingrained in the national character. All nations need intelligent leaders and a trained citizenship. No one in the family of nations recognizes this need more keenly than France, who proposes to meet it systematically through her schools. Her schools seem fundamentally to rest upon the prize system; the rewards to the individual for fidelity to the school requirements are industrial position and military and civic honor. If the system seem somewhat inconsistent with democratic tenets, we have but to recall that France is unique as a republic wherein deep-grounded monarchical ideas and ideals survive. Now that her school machine has been constructed, by the absolutism of a centralized democracy, her next problem is so to operate that machine that the initiative and self-

expression of the individual are not stifled, but are permitted to expand to their full fruition. This problem nowhere is better realized than in the great Republic itself.

We are told that "the history of education in England exhibits three characteristics of the national genius. The English temper is reverent of the past. Education had its beginning in the church; it must never be wholly lost to the church. . . . In the second place, the national temper and government have long been aristocratic. . . . In the third place, the national genius is prosaic and practical."¹ Hence we see conservative England modifying conditions and abandoning traditions but slowly, and yet doing so with a certain heavy sureness. The chief characteristic of the school organization is its lack of organization. The individual is everything, provided it is the individual in his proper place. Vested influences, social cleavages, individual rights, all are respected, and yet somehow England manages to provide effective schooling for her people—a schooling which, after all, seems to conserve those interests which the Englishman holds most dear.

¹ Hughes-Klemm, *op. cit.*, p. 22.

The influence of these three distinctive peoples of the Old World is felt not only by their immediate neighbors, but by the nations of all the continents. Austria is, of course, markedly German; to a lesser but yet to a considerable extent is the effect of German thought to be traced in the school systems of her other neighbors — Switzerland, Holland, Russia, and the Scandinavian triad. English ideas have been carried to her colonies, but in the journey across the seas have lost much of their subserviency to the forms of the past. The South American Republics, touched by the spirit of all three European nations and by that of the United States, are facing the dawn of an educational renaissance destined to transmute the native and Latin tempers into builders of organized world powers.

In the Orient, China is shaking her bulky form after her sleep of centuries and opening her eyes to the possibility of applying occidental policies to the solution of her own peculiar problems. Japan has already for several decades been alive to western influence, and, with a healthy skepticism, has modified the results of her own genius

for organization, by the lesson she has learned abroad.

Finally, what shall we say of our own country? It has been said of us that "while we have no national system of schools we have a national program of education. To teach all subjects to all men in the same school—this is the great educational, social, and economic opportunity of America."¹ Chancellor Brown suggests that among our original contributions to education, the most important are these three:—

"First, the nonsectarian elementary school for all classes of the community, answering to our democratic social organization and our religious liberty.

"Secondly, the American high school, serving at once as a continuation of the elementary school and an introduction to the higher education, with courses meeting a variety of tastes and needs.

"Thirdly, the American university, with its combination of instruction and research, of cultural and technological courses, and with liberal and professional departments often dovetailing into each other. To this might be added that

¹ Davenport, *op. cit.*, p. 33.

notable invention, that new development of personal efficiency, the American university president.”¹

Lest we soothe ourselves with an unwarranted complacency, it may be well for us at this point to see ourselves as we are seen by other eyes. The educational commission sent by Germany to the St. Louis Exposition in 1904, after quietly investigating the educational systems of the United States, did not hesitate to speak critically. They “declared that America is abundant in resources, filled with energy, exceedingly quick-witted and resourceful; that a vigorous people is possessed of such mighty and largely undeveloped physical resources, and has such splendid advantage in coast lines and commercial situation, that undoubtedly it will have to be reckoned with in the trade and commerce of the somewhat distant future; but that the United States is so seriously handicapped with manifest disadvantages, of which Americans are unconscious, that no American industrial competition at any early day need be taken seriously by the German nation. They said these disadvantages make a buoyant confidence without

¹ Elmer E. Brown, *op. cit.*, p. 129.

sufficient underpinning for it, a feeling of complacent satisfaction with everything American, an expectation that, without much planning, and without much philosophical study, or concerted action, or definite plan, or coöperative efficiency, everything will come out all right whenever the need of it arises. They emphasized the entire absence of provision for public schools supplying systematic instruction in craftsmanship, and asserted that this lack is sufficient to overcome any natural advantage in resources or geographical situation.”¹

We may seek to deflect the force of this criticism by replying that it is directed chiefly at our vocational education, and we may resent its terms as an exaggeration; nevertheless there is sufficient truth in it to give us cause for reflection. We may take exception to the sweeping charge of “complacent satisfaction with everything American,” for certainly there is a decided tendency among us to discover the “best,” whatever its source, and to secure it for our own. Indeed, this very desire, the constant expression of a

¹ Commissioner Draper, in Educational Department Bulletin, No. 424, Albany, New York, p. 60.

restless self-governing people, accounts for many of the apparent inconsistencies of our school organization. We are always in the transition state from one experiment to the next.¹ Let us hope that some day we shall reach a condition of stable equilibrium without forfeiting the essential advantages which inhere in our national spirit of adventure.

However faulty the foregoing summary of conditions, one thing is certain: the interest aroused by a nation's schools is by no means proportionate to its area or population. Switzerland, for instance, with her four millions of people, has been termed "the home of educational systems, in comprehensiveness and precision scarcely inferior to that of Prussia itself." "Education is the greatest force in Switzerland; . . . it bulks largest in their legislation and demands their greatest sacrifices."²

¹ "When a method or force has been long in use, the American community is in peril of becoming dissatisfied with it. Its very dominance may contribute to its unpopularity. The contrast in this respect between the American and the English community is wide and deep. The American community desires to change a thing because it has been in use so long; the English desires to retain it simply by reason of its age."—CHARLES F. THWING, "A History of Education in the United States since the Civil War," Houghton, Mifflin, 1910, p. 224.

² Hughes-Klemm, *op. cit.*, p. 251.

Russia, with forty times the population, excites no such admiration for her educational organization as does this sturdy inland republic. The twenty million population of Spain is impressive as a statistical item, but from the educational standpoint it forfeits its rank when compared with the six millions of Holland or the five millions of Scotland.

Nevertheless, after all is said of the national coefficients in education, the trend seems conclusively to be toward a certain uniformity of structure, and we may subscribe to the prophecy of Chancellor Brown that "modern education, overpassing partisan and sectarian bounds, overpassing even local, national, and racial bounds, is fast coming to be in its main features the same throughout the world, and to constitute one dominant, world-wide human interest."¹

¹ *Op. cit.*, p. 64.

B. THE CURRICULUM

CHAPTER XI. GENERAL VIEW

CHAPTER XII. INFANT EDUCATION

CHAPTER XIII. ELEMENTARY EDUCATION

CHAPTER XIV. SECONDARY EDUCATION

CHAPTER XV. HIGHER EDUCATION

CHAPTER XVI. VOCATIONAL EDUCATION

CHAPTER XI

GENERAL VIEW

"It is a truth, now become axiomatic, that the great fact in education during the past thirty years has been *the discovery of the individual*. The courses of study in kindergarten or university are not for general but for special use. To turn a phrase, it may be said that no longer is the student prepared for the college but the college for the student." — SNOW, "The College Curriculum," p. 174.

HAVING completed a general study of the structure of the school systems of the leading nations of the world, we are prepared to consider the second of the three subtopics into which we have divided the broad subject of school organization. Thus far we have contented ourselves with a passing view of the external form of the school structure. This structure is built in order that the national wealth in human individuals may be best utilized in promoting the nation's weal. The school is reared in order that the minds and souls of children, as raw material, may be converted into finished products of disciplined efficiency. We have now, turning our attention

from the edifice to the process which goes on within it, to inspect the mechanism which determines the product.

The three elements in the teaching act are, of course, the pupil, the teacher, and the thing taught. We speak highly of the "influence" of the teacher, and set a large value upon the teacher's "personality." At the same time, no school system is willing to permit the teacher to deal with his pupils solely in accordance with his own judgment as to their intellectual and moral needs. Nor is it satisfied to define the teaching process in terms only of personality and influence, important as these factors are. It imposes upon teacher and pupil a set form and amount of subject matter which must be acquired by the pupil under the guidance and instruction of the teacher. True, it is the hope of the school that this acquisition may be made in a wholesome atmosphere, purified and clarified by the teacher's personality. Nevertheless, the curriculum itself is prescribed in more or less detail, and it is this curriculum which merits our present attention.

The extent to which the State prescribes the curriculum naturally varies in the different coun-

tries.¹ Great Britain and most of her colonial possessions prescribe courses for elementary schools only; Belgium, Norway, and Netherlands prescribe for secondary schools and a minimum for elementary schools; most of the other European nations exercise control over the curriculum for elementary, secondary, and normal schools—Japan, Mexico, Brazil, and Argentine also come in this class. In a majority of the States of the United States, prescription does not extend beyond a minimum for elementary schools, while a large minority do not even go so far.

That there should be differences too in the subject matter of the curricula of the various countries is a matter of course. The history and traditions of the nation, its geographic location and political status, its natural resources and acquired wealth—all shape the national purpose in reference to its schools. It is to be noted, however, that “without doubt, national differences must still be more influential in determining the teaching of the lower schools than that of the

¹ For interesting study, see Fred J. Brownscombe, “State Control of Courses of Study,” Silver, Burdett, 1908.

universities. In some degree this difference must be regarded as permanent. A strong nationalism and even a certain wholesome provincialism are to be cherished in those schools.”¹

There are three or four main points of distinction around which differences in the curriculum center. These may gain clearness if put in the form of questions: (1) Shall the school cultivate the physical and moral as well as the mental? (2) Shall the school educate for culture or train for vocation? and as a corollary: In what proportion shall the classics and the sciences enter the curriculum? (3) Shall the schools differentiate on behalf of individuals or groups of individuals?

The first question is answered quite divergently, as we shall see later. The second question touches alike educational psychology and the social status. Are culture and vocational efficiency contradictory terms? If so, the school must seek one or the other; if not, it must mold its curriculum so as to secure efficiency through cultural subjects and culture through vocational subjects. In either case we are bound to recognize that certain subjects of study are more im-

¹ Brown, "Government by Influence," p. 117.

mediately available for utilitarian purposes and that certain others are chiefly of value as nourishing men's ideals and extending the range of their sympathies. One of the bitterest of the educational contests of the past century—and one still raging—was over the point of the relative values of subjects, particularly as between the humanities and the sciences. The psychologists have appeared in this contest with their dispute as to mental discipline¹ and the consequent question as to whether grilling study in classical grammar will also make one a good scientist, or whether scientific training alone can possibly entitle one to be called "cultured." In its social aspects, the contest has been no less keen. The defenders of the *status quo* have endeavored to identify culture with the socially "elect" and limit its acquisition to those predestined to enjoy it. Meantime the Philistines have been waging war on the strongholds of the self-chosen and securing reluctant recognition. So important

¹ The bibliography is large. To cite but one volume of the more recent ones, W. H. Heck, "Mental Discipline and Educational Values," John Lane Co., 1909. He says (p. 45), "The doctrine of democracy in education and the doctrine of formal discipline cannot be well harmonized."

has been this contest that it has affected not only the internal curriculum but the very structure of the schools, as we have seen, for instance, in the three-sided secondary organization of Germany, in the four faculties in France, and in the vocational high schools in America.

The third question — that as to the differentiation of courses — has a close relation to this second. Is there one continuous curriculum through which *all* children should be carried from the infant school to the university? It is clear that this question must promptly be answered in the negative. What, then, are to be the bases upon which we shall say: *These* children must have *this* curriculum; *those* children must have *that* curriculum? In the spirit of aristocracy and autocracy, *these* children are to be given every educational advantage that shall help them maintain their present social preëminence; *those* children, being of a lower social class, are to be given an elementary education broad enough to train them so that they shall not become a charge upon the upper class, and narrow enough to prevent their breaking into the ranks of the cultured. In the spirit of the new democracy,

these, the naturally favored, are to be given opportunity to develop natural ability for the sake of the commonwealth; and *those*, less favored by social circumstance, are also to be given opportunity to express themselves in terms of culture, if the latent possibility is in any measure present. Hence we see conservative monarchies standing for rather inflexible courses of study, and experimenting democracies tending to a large freedom of election of studies. Just at what stage of the pupil's school life he is to be allowed optional studies is one of the points which will receive our attention as we proceed. We shall see that the inflexibility of the German elementary and secondary curricula is succeeded in the university by an almost unlimited liberty of choice of subjects. By contrast, we shall see that in America, the idea of free election extends downward well into and through the collegiate and secondary curriculum. Recent years have produced spirited argument over the question of elective courses in the colleges.¹ On the one

¹ It is not difficult, however, to trace a certain origin of the elective system back to the year 1779 and to the College of William and Mary. — CHARLES F. THWING, "A History of Higher Education in America," p. 312.

side, we have the testimony of Dr. Eliot: "Now, the experience of forty years in a great variety of American institutions has proved that election by the individual works well, wherever the administrative methods which should accompany such an elective system have been well devised and well executed. Hence, the system is not only inevitable, but in the highest degree expedient and profitable."¹ Against this, we have to oppose the sentiment of Professor Ladd: ". . . my objection to making the entire college curriculum elective is the necessary sequence of the facts. The freshman in the best American college, irrespective of his age and his wisdom, whether in his own eyes or in the eyes of others, has not had (except in rare instances) a secondary education of sufficient extent or thoroughness to fit him to enjoy the privileges of the university idea."²

In all directions of human endeavor the progress of thought results in instability of organization. The school curriculum in every country is more or less in a state of flux. Hence it is

¹ Charles Eliot, "University Administration," Houghton, Mifflin, 1908, p. 153.

² *Op. cit.*, p. 17.

possible to class, as does Superintendent Chancellor, "all of the studies of the so-called public school curriculum, from the kindergarten to the high school, under three heads, viz.:—I. The outgoing studies; II. The modern studies; and III. The incoming studies."¹ We shall keep this in mind as we proceed to our detailed consideration of the course of study in the succeeding steps of the educational ladder, yet the compass of our work will necessitate relegating history and prophecy to the background and studying, in the main, the conditions of to-day. We shall profit, however, if, at this point, we borrow from Dean Talbot her statement of the trend. "The special aims of public school education as they are beginning to manifest themselves follow a few general lines:—

"1. A development of the sense of citizenship.

"2. A knowledge of the conditions which prevail in modern life and power to share in them.

¹ William E. Chancellor, "Our Schools—Their Administration and Supervision," Heath, 1905, p. 275. See entire chapter on "The New Education and the Course of Study," for elaboration of this thought.

"3. Provision for the welfare of individual boys and girls, rather than inviolability of the curriculum.

"4. Recognition of the fact that domestic duties or industrial activities await a large majority of the girls.

"5. The imperative necessity of reaching the children whose wants the older curriculum did not satisfy.

"6. Appreciation of the value of interest as paramount to that of subject matter in determining the importance of a subject.

"7. The promotion of normal physical development."¹

¹ Marion Talbot, "The Education of Women," University of Chicago Press, 1910, p. 147.

CHAPTER XII

INFANT EDUCATION

"The kindergarten is the attempted embodiment of a few great educational ideas. The imperfect apprehension of any one of these ideas enfeebles its practice; the false apprehension of any one of these ideas distorts its practice. Moreover, the inadequately or falsely apprehended idea is betrayed into strange alliances, and thereby undergoes a radical change which is reflected in every detail of practical work." — BLOW, "Educational Issues in the Kindergarten," p. 1.

WE have seen that infant schools fall into two large groups, according to whether they are regarded as preparatory to the elementary schools or as "children's gardens." France, England, and Italy are conspicuous supporters of the former group; Austria, Belgium, and the United States, of the latter; while Germany so far has declined to incorporate any form of infant school in her official system. Naturally, when this grade of school is looked upon as a necessary asylum for children who otherwise would be left without supervision either in the home or in school, the curriculum takes a form quite different from that

of the kindergarten with its distinctive cultural philosophy. Not only in Italy, where the school is termed the *asilo*, but also in France, where prior to 1881 it was generally known as a *salle d'asile*, is this thought of shelter uppermost. As a social obligation the children must be housed and taken care of, and while they are thus gathered together it is a matter of economy to give them the educational rudiments. Hence we find the infant school in the countries of this group practically performing the work of the American or German elementary-school first year.

The curriculum of the French *écoles maternelles* includes moral instruction, study of animals and plants, drawing, writing, reading, language, descriptive geography, arithmetic, manual training, singing, games, and gymnastics. This all "appears rather difficult for small children, but the method of using the program relieves it of its apparent frightfulness. No lesson is more than twenty minutes long, and stringent care is required to avoid mental fatigue."¹ Games, play, singing, and stories are so interwoven with more

¹ Bruce Ryburn Payne, "Public Elementary School Curricula," Silver, Burdett, 1905, p. 160.

serious work as to deprive the program of its terrors. Yet, having the pupils for from one to three years, the school is able to lay the foundations of an elementary school training. Dr. Farrington speaks¹ of hearing the following example given to the third class in a high grade *école maternelle*: A man spends 45 fr. per month for rent, 92 fr. for food, and 32 fr. for clothes. Supposing he saves 31 fr., how much does he earn?

In England, too, we find the same successful attempt to provide an infant-school curriculum which shall lead directly into the elementary school. Reading, writing, and arithmetic form the staples, with elementary nature study, singing, and gymnastics added thereto. In addition, drawing is provided for the boys and needlework for the girls. With two to four years under this curriculum it is not surprising that the pupils pass readily into what would correspond to the American second-year grade.

If, as has been said, the French maternal

¹ Frederic Ernest Farrington, "The Public Primary School System of France," New York, 1906, p. 77. See also p. 78 for extracts from "The Day of a Teacher in an *École Maternelle* in Paris."

school is the transition from the home to the school, we must say of the kindergarten, as usually found in the United States, that it is the transition from the home to the school building. Even where the kindergarten is an integral part of the public school system, pupils enter the first year of the elementary school either directly from home or after a term or two in the kindergarten. Apparently the kindergarten is in no way a necessary preliminary to the elementary school. It does not keep the child throughout a long school day, as is the case abroad, three hours being the average daily session. The curriculum frankly disclaims preparation in the conventional fundamentals of the common school, and yet in the largest sense its training is intended to broaden the life of the child throughout all his subsequent school years.

In order to make clear the difference between the curriculum of the infant school, aimed to prepare, in a more or less pleasant way, in the fundamentals, and that of the kindergarten, it is necessary to sketch, at least briefly, the essentials of the Froebelian philosophy and method. The kindergarten aims first of all to develop

ideals. The gathering of children together creates a social microcosm which is to be so manipulated that it shall exert an educational influence upon the individual. An atmosphere is developed in which the child shall grow harmoniously as an individual and as a member of society. The "field is his schoolroom," and he is brought into sympathetic touch with nature. Spiritual things are sensed largely through the symbolism which permeates the activities of the class.

The curriculum is built by the use of three teaching "tools" — songs and games, gifts, and occupations.

(1) The songs and games, intimately connected one with the other, are based upon Froebel's "*Die Mutter und Kose-Lieder*," called by the faithful the kindergarten Bible. The fifty or more games¹ which it contains are frequently, in practice, supplemented by others developed by individual kindergartners for their local needs. Each of these games "illustrates a typical phase

¹ To be found in Susan E. Blow, "The Songs and Music of Froebel's Mother-Play," Appleton. See also, Maria Kraus-Boelte-John Kraus, "The Kindergarten Guide," E. Steiger and Co., 1882.

of the child's development." They may be grouped into (1) those related to nature, as *The Flower Basket*, *The Fish in the Brook*; (2) those based on family relationships, as *The Greeting*, *The Family*; (3) those suggestive of trades and occupations, as *The Little Gardener*, *The Wheelwright*; (4) those descriptive, as *The Bridge*, *Hide and Seek*; and (5) songs of the senses, as *Taste Song*, *Numbering the Fingers*. Especial significance is given to the songs by imitation and dramatization.

(2) The so-called gifts to the child were worked out by Froebel to lead up to the occupations. "Their chief connection lies in the fact that impression made through the gifts is converted into expression in the occupations." The gifts are ten in number, as follows:—

First: Soft, woolen balls in the six spectrum colors, with strings attached for use in various motions. The ball "is the simplest shape and the one from which all others may subsequently be derived."

Second: Wooden sphere, cube, and cylinder, two inches in diameter, "with rods and standards for revolution." The mediation of opposites is

a law "lying at the very root of Froebel's system." The child whirls the cube rapidly and sees the cylinder evolve, and from the whirling cylinder he gets the sphere.

Third: A two-inch wooden cube divided into eight one-inch cubes.

Fourth: A two-inch cube divided "once vertically, and three times horizontally, giving eight parallelopipeds or bricks, each two inches long, one inch wide, one half inch thick."

Fifth: A three-inch cube, divided into thirds in each dimension, making 27 one-inch cubes, of which three are divided diagonally into halves, and three, by two diagonals, into quarters.

Sixth: A three-inch cube cut into 36 pieces, variously rectangular parallelopipeds or bricks, blocks, square prisms, and columns.

Seventh: Colored tablets derived from the solids of the previous gifts — rectangles, squares, etc.

Eighth: Wooden sticks of various lengths, plain or dyed in primary colors, illustrating the edge or straight line.

Ninth: Wire rings, entire, halves, and quarters, illustrating the curved line.

Tenth: Various objects, beans, lentils, pebbles, shells, seeds, etc., illustrating the point.

Of these ten gifts, the first introduces form, color, and the idea of unity, and the second, number and arithmetic processes (in faces, bases, edges, etc.) and variety. The next four are the "building gifts," arranged, it will be noticed, in order of increasing difficulty of manipulation. Only the first six are taken up in their numbered order, the last four being introduced as supplementary to, and in connection with, the others.

The children do not play aimlessly with the gifts, but are guided by the teacher, at first imitating and eventually exercising considerable originality in design. Three classes of forms are produced: (1) life forms, as seen in the daily life of the child — a table, a bed, a house, a bridge, etc.; (2) beauty forms, in arrangements of blocks, etc.; and (3) mathematical forms, demonstrating the elementary principles of addition, subtraction, multiplication, and fractions.

(3) The occupations reverse the progress of the gifts, traveling from the point back to the solid. In order, they are: perforating, sewing, drawing, slat interlacing, weaving, cutting, fold-

ing, frame making (uniting wires by points represented by peas), modeling. Practice does not, however, necessarily follow this logical order, but correlates the occupations more closely with the gifts.

A typical day's program is : —

Circle (of pupils)	Prayer
	Talk on subject of day,
	or story
	Song
Marching or Rhythm	
Gift	
Game	
Occupation	
Circle	

How much symbolism enters into the work of the kindergarten is instanced by the constant use of the circular arrangement for all group activities, because the circle is the "symbol of unity."

CHAPTER XIII

ELEMENTARY EDUCATION

"It is an axiom in my mind, that our liberty can never be safe but in the hands of the people themselves, and that, too, of the people with a certain degree of instruction. This it is the business of the State to effect, and on a general plan." — JEFFERSON: in a letter to Washington, January 4, 1786.

UNITED STATES

IN the United States, just as there is no central control of education, so there is no standardized course of study for elementary schools — nor for the schools of any grade. A few of the States have prescribed minimum courses or offered suggestive courses. New York, for instance, has prepared a syllabus, which is introduced by the following explanatory statement: —

"In determining the work of the elementary schools, a six-year course has been prepared. This course is general in character and adapted to all children until that period of their development when they manifest different interests, mental powers, and tastes, which is usually at the age of twelve.

"This six-year course is followed by an intermediate course of two years, covering the usual seventh and eighth grades and rounding out the elementary course. In this two-year course the work begins to differentiate. Work is planned which leads to the long-established high school courses, to commercial courses, and to industrial courses. Certain work previously done in the high school course has been brought down in this two-year course to economize the pupils' time, to reduce the pressure and strain under which high school students have labored during their first years in high school, and to interest pupils in work which will induce them to remain in school for a greater number of years.

"There are therefore the following courses:—

- I. Six-year elementary course.
- II. Intermediate course—seventh and eighth years."¹

Most of the States, however, content themselves with legislating only as to certain features of the curriculum. For example, all of the States prescribe the study of physiology and hygiene, with special reference to the effects of alcohol

¹ Education Department Bulletin, May 15, 1910.

and narcotics,¹ California prescribes "morals and manners," Illinois and New Hampshire "moral and humane education," Arkansas and others elementary agriculture, and so on.

In the urban schools each city usually is a law unto itself. Each prescribes for its own needs, usually in minute detail by means of syllabuses explanatory of its course of study. The time allotments for a few of the leading cities are here given:—

NEW YORK

EXPLANATIONS AND DIRECTIONS

Manual Training.—Drawing, constructive work, cord and raffia work are prescribed for boys and girls; shop work for boys alone; sewing and cooking for girls alone. In the third year the boys take cord and raffia work for 60 minutes each week. In the 3 A grade the girls take cord and raffia work for 30 minutes, but in the 3 B grade they omit work in this line, devoting 60 minutes to sewing. During the fourth, fifth, and sixth years, the time allowed to sewing for girls is used by boys in constructive work. In the seventh and eighth years advanced sewing is taken by girls in schools not provided with kitchens, but the time in this case may be one hour instead of 80 minutes.

Study Periods.—At least 30 minutes per day from the fourth to the eighth year, inclusive, should be devoted to study. Principals

¹ "The value of this is questioned by many if not by a majority of those engaged in teaching, and the regulations in many cases verge perilously upon the ridiculous, as viewed from the standpoint of the schoolroom. They bear much stronger testimony to the zeal than to the common sense of the good people behind the movement."—Brownscombe, *op. cit.*, p. 51.

should see that the time specifically given to subjects that require preparation should not be used exclusively for recitation purposes, but that it should be used also, as occasion may require, for purposes of study.

Electives.—The study to be pursued in any one school shall be determined by the Board of Superintendents. Any regular subject in the curriculum may be substituted for any elective at the discretion of the Board of Superintendents.

The figures in parentheses in the seventh and eighth years represent the number of forty-minute periods per week.

MINUTES PER WEEK

YEARS	I	II	III	IV	V	VI	VII	VIII
Opening Exercises	75	75	75	75	75	75	75	75
Physical Training, Physiology and Hygiene, Recesses and Organized Games	450	165	165	150	90	90	90	90
English	450	510	450	375	375	375	(9) 360	(8) 320
Penmanship	100	125	125	75	75	75	—	—
Electives (German, French, Spanish)	—	—	—	—	—	—	—	(5) 200
Geography	—	—	—	135	120	120	(3) 120	1
History	—	—	—	—	90	120	(3) 120	(3) 120
Mathematics	125	150	150	150	150	200	(5) 200	(5) 200
Nature Study	90	90	90	90	75	—	—	—
Science	—	—	—	—	—	—	(2) 80	(2) 80
Drawing and Constructive Work	120	120	120	120	120	120	(2) 80	(2) 80
Cord and Raffia	30	30	30	—	—	—	—	—
Sewing	—	—	30	60	60	60	—	—
Shop Work, Cooking or Ad- vanced Sewing	—	—	—	—	—	—	(2) 80	(2) 80
Music	60	60	60	60	60	60	60	60
Study and Unassigned Time .	—	175	205	210	210	205	235	195
	1500	1500	1500	1500	1500	1500	1500	1500

¹ In schools having a foreign language as an elective the study of geography in the eighth year is optional; if studied, 80 minutes for the study should be taken from the unassigned time. In schools not having a foreign language 120 minutes for the study should be taken from the 200 minutes apportioned to an elective.

CHICAGO

GRADES	I ¹	II ²	III ²	IV ²	V	VI	VII	VIII
Opening Exercises . . .	50	50	50	50	30	30	30	30
English	795	645	595	375	330	300	300	300
History and Civics . . .	—	—	—	⁵	60	60	150 ⁴	150
Mathematics	—	150	200	250	150	150	150	150 ³
Chicago Course	—	—	—	—	—	—	—	150 ⁴
Geography	—	—	—	200	150	150	150 ³	—
Nature Study	75	75	75	60	60	60	60	60
Music	75	75	75	75	90	90	90	90
Art	50	50	50	50	90	90	90	90
Industrial Arts	150	150	150	150	150	180	180	120
Penmanship	50	50	75	75	75	75	75	75
Physical Education . .	100	100	75	60	60	60	60	60
Recesses	125	125	125	125	125	125	125	125
Study	—	—	—	—	100	100	100	100
General Use	30	30	30	30	30	30	90	150
Total	1500	1500	1500	1500	1500	1500	1500	1500
German	{ Pupils whose parents so desire may substitute German for Art and Nature Study.							
Physiology and Hygiene	{ Substituted in place of Nature Study from the middle of November to the end of January.							
Humaneness	{ Taught in Opening Exercises, English, History and Civics, Nature Study, and Music.							

¹ Three classes in a division.² Two classes in a division.³ First half year (semester) of the grade.⁴ Second half year (semester) of the grade.⁵ Included in period for English.

PHILADELPHIA

A SUGGESTED ALLOTMENT OF TIME FOR ELEMENTARY GRADES

GRADES	1	2	3	4	5	6	7	8
Opening Exercises . . .	60	60	60	60	60	60	60	60
Recess	150	150	150	150	75	75	75	75
Physical Culture . . .	60	60	60	60	60	60	60	60
Drawing	105	105	105	105	105	105	105	105
Music	60	60	60	60	60	60	60	60
Sewing	—	—	60	60	60	60	60	60
Arithmetic	150	200	200	200	225	225	225	225
Language	190	190	190	190	190	190	190	190
Spelling and Dictation .	60	60	60	60	60	60	60	60
Reading	400	350	200	200	100	100	100	100
Penmanship	100	100	75	75	50	50	50	50
Geography	—	—	120	120	120	120	120	120
History	—	—	—	—	120	120	120	120
Physiology	—	—	—	—	75	75	75	75
Unassigned Time . . .	165	165	160	160	140	140	140	140
	1500	1500	1500	1500	1500	1500	1500	1500
NOTE 1:— Drawing, Music, Sewing	165	165	225	225	225	225	225	225
NOTE 2:— Physical Training and Play	210	210	210	210	135	135	135	135
NOTE 3:— Language Group, in- cluding Penmanship .	750	700	525	525	400	400	400	400

NOTE.—Cooking 150 minutes per week is not counted. The time for this subject is to be taken from the other subjects of the sixth grade.

BOSTON

YEAR	1	2	3	4	5	6	7	8
Arithmetic	25	210	210	270	270	230	210	210
Drawing	100	95	90	90	90	90	90	90
Elementary Science . .	30	30	30	45	45	45	45	60
Geography	—	—	—	150	150	150	150	90
History	—	—	—	30	30	120	120	150
Manual Training or Household Science and Arts .	—	30	30	120	120	120	120	120
Music	60	60	60	60	60	60	60	60
Opening Exercises . . .	60	60	60	30	30	30	30	30
Physical Training . . .	60	90	90	80	80	80	80	80
Physiology and Hygiene .	—	—	30	30	30	30	60	60
Recesses	200	200	200	100	100	100	100	100
Reading and Literature .	735	480	455	190	190	165	150	195
Spoken and Written English	230	245	245	305	305	280	285	255
Total	1500	1500	1500	1500	1500	1500	1500	1500

MILWAUKEE

GRADES	1	2	3	4	5	6	7	8B	8A
Reading	450	400	300	250	200	175	100	100	100
Language	100	100	125	125	150	150	200	200	225
Spelling	100	100	100	100	100	100	50	50	50
Writing	75	100	100	100	100	60	40	20	20
Arithmetic	75	100	150	175	175	200	200	200	225
Geography	—	—	50	60	90	120	120	140	—
History of the U. S. . .	—	—	—	—	—	—	125	125	200
Drawing	75	75	75	75	75	75	75	75	75
Music	75	75	75	75	75	75	75	75	75
German	150	150	150	175	175	175	175	175	175
Manual Training . . .	60	60	60	60	60	60	90	90	90
Calisthenics	50	50	50	50	50	50	50	50	50
Opening and General	125	125	125	125	125	125	125	125	125
Special Help	—	150	150	150	150	150	150	150	150
Recess	150	150	125	125	125	125	75	75	75
Optional	15	15	15	5	—	10	—	—	15

LOUISVILLE

	I	II	III	IV	V	VI	VII	VIII
Opening Exercises	25	25	25	25	25	25	25	25
Reading and Literature	500	500	425	335	220	155	150	150
Spelling	—	100	100	100	75	75	75	75
Grammar	—	—	—	—	—	—	150	150
Language	100	200	225	150	—	—	—	—
Composition	—	—	—	—	200	150	135	135
Conduct and Morals	—	—	—	—	—	—	—	—
Nature Studies	—	—	—	—	75	75	60	75
History and Civil Govern- ment	—	—	—	—	—	125	150	150
Geography	—	—	—	175	220	210	200	185
Arithmetic	75	200	250	250	250	250	240	240
Drawing and Industrial Work	100	100	100	100	90	90	90	90
Music	50	75	75	75	75	75	75	75
Writing	50	100	100	90	70	70	—	—
Physical Culture, Physiology and Hygiene	50	50	50	50	50	50	—	—
Recesses	100	150	150	150	150	150	150	150
Total	1050	1500	1500	1500	1500	1500	1500	1500

For the First Grade the subjects Reading and Language are to be taken as one.

For the first four years the Language Work is to include the four topics immediately following Language. After the fourth year the time allotment is given to each subject. The topic "Conduct and Morals" is to be included in the time allotment for the Constructive Work and Composition.

More time to be given to Industrial Work than Drawing in the first four grades.

The programs given are sufficient in number to show that different cities place the emphasis upon different subjects. This is more clearly brought out by grouping the figures for the chief subjects in the six cities into the following table:—

TOTAL OF WEEKLY TIME IN MINUTES FOR THE EIGHT YEARS,
SPECIFICALLY ASSIGNED TO

	ENG- LISH ¹	MATHE- MATICS	GEOG- RAPHY	HIS- TORY	SCI- ENCE	DRAW- ING	CON- STRUC- TION WORK	MUSIC
New York .	3790	1325	495	450	595	880	460	480
Chicago .	4190	1125	650	420	525	560	1230	660
Boston .	4710	1635	690	450	330	735	660	480
Philadelphia	4100	1650	720	480	—	840	360	480
Milwaukee .	4432	1288	510	288	—	600	540	600
Louisville .	5090	1755	990	425	285	760	—	575

¹ Includes Reading, Literature, Grammar, Spelling, Composition, and Penmanship.

The 1910-1911 schedule for the city of Cleveland (p. 203) is of particular interest in consequence of the fact that it "is based upon the average time given to each study in each grade of the schools of the following cities: Boston, New York, Philadelphia, Rochester, Cleveland, Cincinnati, Indianapolis, St. Louis, Chicago, Milwaukee, and San Francisco."

This shows weekly totals as follows: —

English	5415
Mathematics	1685
Geography	785
History	460
Drawing	660
Construction Work	520
Music	650

The programs of two cities having nine-year courses are given to illustrate the use made of the additional year (pp. 204, 205).

	I	II	III	IV		V		VI		VII		VIII	
				Eng.	G.	Eng.	G.	Eng.	G.	Eng.	G.	Eng.	G.
Opening Exercises	50	50	50	25	25	25	25	25	25	25	25	25	25
Reading	500	500	440	310	150	255 ¹	175	215 ²	175	240 ³	120	240 ⁸	120
Spelling	75	100	125	100	100	80	80	75	75	75	75	75	75
Grammar	—	—	—	—	—	—	—	—	—	160	160	160	160
Language, Composition . . .	125	150	125	165	125	190	110 ⁴	190	110 ⁴	40 ⁵	—	40 ⁶	—
German	—	—	—	—	200	—	200	—	200	—	160	—	160
Writing	75	100	100	100	100	90	90	75	75	75	75	50	50
Arithmetic	60	215	225	240	240	225	225	245	245	225	225	250	250
History	—	—	30	40	40	40	—	80	—	135	135	135	135
Geography	—	—	45	160	160	200	200	200	200	90	90	90	90
Music	75	85	85	85	85	80	80	80	80	80	80	80	80
Drawing	75	75	75	75	75	90	90	90	90	90	90	90	90
Manual Training ⁶	50	50	50	50	50	60	60	60	60	100	100	100	100
Physiology—Hygiene . . .	15	15	15	15	15	30	30	30	30	30	30	30	30
Physical Training	100	85	60	60	60	60	60	60	60	60	60	60	60
Recess	—	75	75	75	75	75	75	75	75	75	75	75	75

¹ Two (40) forty-minute periods per week to supplementary reading. ² One (40) forty-minute period per week to supplementary reading. ³ Three (40) forty-minute periods per week to supplementary reading.

⁴ One (22) twenty-two minute period per week to composition. ⁵ One (40) forty-minute period per week to composition. ⁶ Manual training time deducted from the several studies pro rata.

SCRANTON, PA.

	1	2	3	4	5	6	7	8	9	TOTAL	AVE- RAGE
Opening Exercises	60	60	60	30	30	30	30	30	30	360	.02 $\frac{2}{3}$
Recesses	150	150	150	100	100	100	100	100	100	1050	.07 $\frac{1}{2}$
Physical Training	60	80	80	80	80	80	60	60	60	640	.04 $\frac{2}{3}$
Drawing	100	100	100	90	90	90	80	80	80	810	.06
Music	60	60	60	60	60	60	60	60	60	540	.04
Physiology and Hygiene	30	30	30	35	35	35	40	40	40	315	.03 $\frac{1}{2}$
English, Spoken and Written	230	260	280	320	320	320	310	310	310	2660	.19 $\frac{1}{2}$
Reading and Literature	660	550	530	245	245	245	220	220	220	3135	.23 $\frac{3}{8}$
Geography	—	—	—	150	150	150	150	150	150	900	.06 $\frac{3}{8}$
History	—	—	—	100	100	100	150	150	150	750	.05 $\frac{5}{8}$
Arithmetic	150	210	210	290	290	290	300	300	300	2340	.17 $\frac{1}{8}$
Total	1500	1500	1500	1500	1500	1500	1500	1500	1500	13500	100

NOTE.— Throughout the course, habits of study should be developed. The minimum amount of time for independent study per week should be: Fourth grade, 150 minutes; fifth grade, 150 minutes; sixth grade, 150 minutes; seventh grade, 200 minutes; eighth grade, 240 minutes.

WORCESTER, MASS.

	I	II	III-1	III-2	IV	V	VI	VII	VIII	PREP.
Opening Exercises ¹	75	75	75	75	30	30	30	30	30	30
Recesses	125	125	125	125	125	125	125	125	125	75
Physical Exercises	60	60	60	60	30	30	30	30	30	30
Drawing	80	80	80	80	80	90	90	90	90	45
Music	60	75	75	75	75	75	75	75	75	60
Language	125	115	150	175	245	180	180	220	220 ²	600 ³
Penmanship	75	75	75	75	75	60	60	30	30	—
Spelling	50	75	100	100	75	60	40	30	30	—
Reading	450	450	375	250	225	250	220	200	140	—
Mathematics	100	225	240	240	250	260	250	250	250	230
Elementary Science	75	75	75	75	75	75	75	75	90	—
History	—	—	—	60	80	90	90	120	135	150
Geography	—	—	—	60	80	120	135	135	135	80
Manual Training	—	—	—	—	—	45	60	90	90	—
Unassigned	75	70	70	50	55	10	50	0	30	50
Total	1350	1500	1500	1500	1500	1500	1500	1500	1500	1350

¹ Includes devotions, morning talks, songs, story, etc.² Latin 120, optional.³ English 300, Latin 150, German or French 150.

Literature is included in both reading and language in grades below the fifth. In Grade V and above, time for literature is included in the reading.

Grade I.—Teachers may take ten minutes of unassigned time for arithmetic. Drawing four times per week. On the fifth day give extra time to reading, language, and literature.

Grade II.—Teachers may increase time daily for language and literature by taking from unassigned time. On the day when there is no drawing, increase time for spelling.

Grade IV.—Drawing, two forty-minute periods. On the days (two successive) when there are drawing periods, alternate history and geography. On the days (three successive) when there are no drawing periods, give at least twenty minutes each to history and geography. On these same days, extra time should be given to drill in arithmetic tables and rapid calculation.

In 1905, Dr. Payne made a study of elementary curricula,¹ in which he compared the schedules of ten typical American cities, setting forth the average time, in minutes per week, given to each subject. The resulting table may thus be considered a "composite" of the conditions prevailing at that date.

¹ Bruce Ryburn Payne, *op. cit.*, 1905.

GRADE	I	II	III	IV	V	VI	VII	VIII
Opening Exercises	43	43	43	40	40	40	40	40
Reading and Literature . . .	443	404	367	373	232	160	142	129
Writing	80	78	91	79	62	62	28	22
Spelling	47	90	81	73	67	62	44	33
Grammar, Language, and Composition	130	146	144	158	176	224	254	256
Arithmetic	161	195	232	239	241	249	242	231
Geography	11	20	53	156	164	150	127	81
History and Civil Government	5	5	5	17	41	171	152	160
Elementary Science and Na- ture Study	35	35	34	46	51	44	58	49
Physiology	7	7	8	8	13	13	8	8
Physical Training	52	49	50	49	42	37	37	37
Drawing	75	85	88	82	86	92	78	77
Music	67	71	68	68	67	67	64	64
Manual Training	16	18	19	33	30	30	50	50
Total Assignments . .	1174	1250	1285	1401	1313	1404	1327	1245

GERMANY

In Germany, the elementary curriculum is prescribed in all its essential features by the State governments. Thus the Prussian requirement is:—

GRADE	I	II	III	IV	V	VI	VII	VIII
Religion	240	240	240	240	240	240	240	240
Language	660	660	480	480	480	480	480	480
Arithmetic	240	240	240	240	240	240	240	240
Geography, History, and Ob- ject Lessons	—	—	360	360	360	360	360	360
Gymnastics	120	120	120	120	120	120	120	120
Drawing	—	—	120	120	120	120	120	120
Singing	60	60	120	120	120	120	120	120
Handwork for Girls . . .	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)
Geometry	—	—	—	—	—	120	120	120
Total	1320	1320	1680	1680	1680	1800	1800	1800

Dr. Payne's composite table for ten typical German cities throughout the empire is:—

GRADE	I	II	III	IV	V	VI	VII	VIII
Religion	172	199	207	234	246	246	234	218
Language	588	603	600	567	513	501	583	472
Arithmetic	252	282	282	282	270	270	270	255
Geography	58	47	113	115	111	111	134	147
History	—	—	33	60	103	103	110	120
Nature Study . . .	—	—	80	66	100	140	126	111
Gymnastics	54	36	60	108	132	132	132	125
Drawing	12	42	54	60	120	114	137	128
Singing	54	54	93	99	93	93	99	90
Handwork	(96)	(132)	(222)	(234)	(258)	(246)	(258)	(278)
Geometry	—	—	—	18	42	72	102	112
Total	1190	1263	1502	1609	1730	1782	1822	1788

FRANCE

In France, the program of studies is prescribed by the national authority. For the *école primaire élémentaire* it is as follows:—

GRADE	I ¹	II	III	IV	V	VI
Moral Instruction . .	Five Recitations per Week					
Writing	300	300	Gradually decreasing			
Language	600	600	600	600	600	600
Arithmetic	225	225	300	300	300	300
Geography, History, Civics	300	300	300	300	300	300
Common Things, Ele- mentary Science . .	75	75	150	150	150	150
Physical Training . .	150	150	150	150	225	225
Drawing	Two or Three Recitations per Week					
Singing	60	60	60	60	60	60
Manual Training . .	150	150	150	150	180	180
Sewing	(150)	(150)	(150)	(150)	(180)	(180)
Total	1800	1800	1800	1800	1800	1800

¹ This grade more nearly corresponds to the second-year work of the other countries, by reason of the preparation given in the *écoles maternelles* and *classes enfantines*.

For the *école primaire supérieure*, the program is:—

YEAR	I	II	III
Moral Instruction	60	60	60
French	300	300	240
Writing	60	60	60
History and Civics	60	60	120
Geography	60	60	60
Modern Language	180	180	120
Mathematics	240	180	180
Bookkeeping and Accounts	—	60	60
Physics and Chemistry	120	120	120
Natural History and Hygiene	60	60	60
Agriculture and Horticulture	60	60	60
Common Law, Political Economy	—	—	60
Drawing and Modeling	180	180	180
Manual or Agricultural Work	240	240	240
Gymnastics	120	120	120
Singing	60	60	60
Total	1800	1800	1800

ENGLAND

In England, the school is the unit, and the only influence exercised by central authority upon the curriculum of the individual school is that which comes by awarding financial aid to those schools which maintain a certain standard of efficiency. Again we are indebted to Dr. Payne for a composite table of ten English cities.

GRADE	I	II	III	IV	V	VI	VII	VIII
Scripture	155	155	156	156	156	156	156	156
Reading	210	206	181	154	140	127	108	76
Writing	123	91	85	78	69	62	73	70
Spelling	66	85	60	58	43	39	33	5
Grammar	42	49	66	67	67	70	67	65
Recitation or Literature . .	52	57	56	53	54	53	50	95
Composition	43	52	61	54	85	99	72	25
Arithmetic	267	266	276	308	294	293	257	231
Algebra	3	3	3	5	13	35	61	136
Geography	53	64	80	91	87	88	70	97
History	32	38	37	42	40	40	34	58
Object Lessons, Elementary								
Science, Nature Study . .	62	61	55	44	40	41	46	92
Physical Training	48	49	52	42	46	43	29	30
Drawing	115	125	125	127	127	130	121	95
Singing	64	64	64	64	67	67	65	70
Woodwork	8	16	19	18	50	61	71	—
Needlework	(103)	(103)	(106)	(106)	(107)	(106)	(126)	(157)
Cooking	(14)	(14)	(14)	(12)	(12)	(12)	(12)	
French	4	4	2	2	2	29	36	47
Total	1347	1369	1361	1359	1380	1433	1359	1338

SUMMARY

In studying comparatively these national tables, perhaps the most striking difference to be noted is the heavy demands made upon the pupils in the French schools. The large total of 1800 minutes per week, exclusive of study periods, is carried down to the very lowest grade. The English table also shows an approximate equality of time allotment throughout all grades. This

too is the American custom, the total weekly time spent in school being generally 1500 minutes. In Germany alone of these four systems do we find a marked difference between the time required of pupils of the lowest and of the highest grade.

Considering the work of the schools along the large divisions of physical, mental, and moral training, we may make two broad generalizations: (1) Physical training receives the largest degree of attention in England,¹ with America far behind the two continental countries. (2) Moral instruction finds practically no place in the American curriculum, unless we consider as such the comparatively insignificant effect of certain general appeals for ethical training in the syllabuses of some cities and the quite general provision for the reading of the Bible in the schools, usually "without note or comment." Quite to the contrary, the subject receives much attention in the programs of the other countries — in England

¹ "The time allotments, while making a fairly good showing, do not properly indicate the status of physical culture in the English schools, for the English organize games in the recess periods and conduct numerous systematic sports after school hours that are not shown in the time allotments." — Payne, *op. cit.*, p. 101.

and Germany¹ in the form of dogmatic religious teaching in accord with the faith elected by the parents of the individual children, and in France in the form of prescribed instruction in ethics and civics along strictly nonsectarian lines.

We may make a still further grouping of subjects by separating from the others the distinctive "arts and crafts." Placing in this group drawing, music, and the various forms of manual training, we see England again in the lead. Germany seems preëminent in music and France in manual work, which it provides in equal measure for both sexes.

Of course the mere statement of the time devoted to the various subjects by no means indicates the character and extent of the teaching of those subjects. To get any thorough basis for comparison of countries in this respect, it would be necessary to investigate the many syllabuses which prescribe the details. Such a task is beyond the scope of this study, and so we must con-

¹ "In Germany there is much secret dissatisfaction with the religious requirements in the schools. There is a strong belief that religious instruction as carried on there does more harm than good."—Gillette, *op. cit.*, p. 208, in Chap. 9, "State Education and Religion."

tent ourselves with the very general comparisons which the time schedules furnish. So, too, are we limited as to the number of countries which may be considered. Beyond the four referred to, however, one is of peculiar interest—we may profitably give space to the program of Japan.

ELEMENTARY COURSE (1907)

HOURS PER WEEK

	ORDINARY						HIGHER		
	I	II	III	IV	V	VI	VII	VIII	IX
Morals	2	2	2	2	2	2	2	2	2
Language	10	12	14	14	10	10	8	8	8
Arithmetic	5	6	6	6	4	4	4	4	4
History and Geography	—	—	—	—	3	3	3	3	2
Science	—	—	—	—	2	2	2	2	2
Drawing—Boys . . .	(1)	(1)	1	1	(2)	(2)	2	2	2
Drawing—Girls . . .	(1)	(1)	1	1	(1)	(1)	1	1	1
Singing	1	1	1	1	2	2	2	2	1
Gymnastics and Games	3	3	3	3	3	3	3	3	3
Sewing—Girls . . .	—	—	1	2	3	3	4	4	6
Manual Work—Boys	(1)	(1)	(1)	(2)	(2)	(2)	2	2	2
Manual Work—Girls	(1)	(1)	(1)	(2)	(2)	(2)	1	1	1
Agriculture or Commerce	—	—	—	—	—	—	(2)	(2)	(2)
Total—Boys . . .	21	24	27	27	28	28	28	28	28
Total—Girls . . .	21	24	28	29	30	30	30	30	30

() = Optional according to local circumstances.

CHAPTER XIV

SECONDARY EDUCATION

"The striking thing about the Roman secondary school is that the culture, which conditioned its existence, was foreign ; and this has remained true of the secondary schools of all nations which have appeared in the subsequent history of Western civilization." — ANDERSON, "History of Common School Education," p. 47.

"European and American secondary schools are somewhat alike in their curricula, in that studies contributing to general culture play the main rôle, and in the fact that the content as well as the method of teaching is largely determined in response to the demands of the superior institutions." — DUTTON-SNEDDEN, "Administration of Public Education in the United States," p. 356.

THE conflict between the classical and the scientific spirit has raged most fiercely about the secondary school and its curriculum. We have seen how, in all countries, the proponents of the theory that only the study of the classics is culturally worth while have had to yield before the assaults of modernism. While there yet lingers among the elect the feeling that one who has not

mastered the ancient languages and literatures can never know the true meaning of education, the fact is that everywhere men and women are training themselves in the modern languages and the sciences, with no conscious thought that their consequent neglect of the classics has put them outside the pale. Officially, the equality of the two contrasted phases of education has been almost universally proclaimed. This condition has been brought about so very recently that perhaps we are not yet in a position properly to evaluate the trend or to estimate the future status of secondary education.

Says Chancellor Brown:¹ "The consideration of tendencies in secondary education just now brings us near to the very heart of our civilization. For the past ten or twelve years we have seen middle-school problems occupying a central place in the thought of the great culture nations. We have had a decade or more of middle-school reforms." He cites among the significant events: the Berlin Conference, 1890; the Committee of Ten, 1893; the English Parliamentary Commission on Secondary Education, 1895; the establishment of the English Board of Education; the Commission appointed by the French Chamber of Deputies, 1899; the Brunswick Declaration and Kiel Decree, 1900. "It is a most remarkable record, and war-

¹ Elmer E. Brown, "The Making of Our Middle Schools," Longmans, Green, 1903, p. 464.

rants the belief that we have just been passing through one of the greatest formative epochs in the history of secondary schools."

It will be wise only to note the fact that at the present day the secondary curriculum is marked by diversity of courses and that this diversity is greatest in the American schools. In the United States the pupil is allowed great latitude in selection, many courses in many subjects being offered him, even within a single high school. On the continent, the pupil's option is rather between schools than between courses within a school; a school once selected, he finds little opportunity to choose from among the subjects presented. Moreover, in Germany for example, if he happens to live in a community which supports only one of the three kinds of schools, he has really no choice.

UNITED STATES

The secondary schools of the United States have made an advance within the last generation, far beyond anything experienced by those of continental Europe. This is so, in a measure, because there was greater room for improvement. "In quality as well as in quantity of information im-

parted, our public high school courses quite equal and in many ways surpass our former college courses, except in subjects which are no longer compulsory therein.”¹

Even more than in the case of the elementary schools, the curriculum of the high schools is left unprescribed by the State departments, although some States, as for instance New Jersey, issue suggestive syllabuses. Each city or district board of education exercises its discretion, with the result that the courses offered in various cities differ considerably in details. Nevertheless there are certain characteristics common to all, so that we may readily describe the typical, or composite, American high school curriculum. Exclusive of those avowedly vocational, which will be considered in a later chapter, three courses are offered. These go under various names, but are usually known as classical, scientific, and general. The first two of these prepare for the colleges, and the third gives a general education for those pupils whose formal schooling must end with the completion of the secondary stage. The typical studies of the classical course are: English and

¹ Birdseye, "Individual Training," p. 126.

Latin, throughout the four years; French or German, from two to four years; Greek, the last two or three years; mathematics (algebra and geometry) two or three years; together with varying required or optional amounts of history (ancient and modern), science (physiology, botany, zoölogy, physics, chemistry), and drawing. The scientific course retains the English but modifies the Latin requirement, extends the mathematics, makes more of the science obligatory, offers a greater amount of modern language, and adds certain technical subjects—manual training, applied arts, etc. The general course offers a wider choice of modern languages from the beginning (two may be taken in the first year), and several broad options in history and science.

The above, of course, is only a very general statement. Also in general, it may be said that a pupil must take a minimum of four hours of recitations daily, and that this time will be occupied with four or five, rarely more than six, different subjects. As a specific instance, the three academic courses of the Jersey City High School may serve as a type.

GRADE	CLASSICAL	TECHNICAL	GENERAL
9 A	English, 5 Algebra, 5 Latin, 5 French or German, 5 Botany, optional, 4	English, 5 Algebra, 5 Latin, 5 French or German, 5 Botany, optional, 4	English, 5 Algebra, 5 French or German or Latin, 5 Botany, 4 Additional language, op., 5
9 B	English, 5 Algebra, 5 Latin, 5 French or German, 5 Zoology, optional, 2 Physiology, optional, 2	English, 5 Algebra, 5 Latin, 5 French or German, 5 Zoology, optional, 2 Physiology, optional, 2	English, 5 Algebra, 5 French or German or Latin, 5 Zoology, 2 Physiology, 2 Additional language, op., 2
10 A	English, 5 Algebra, 5 Latin, 5 Greek, 5 French or German, op., 5 Ancient History, op., 3	English, 4 Algebra, 5 Latin, 5 French or German, 5 Ancient History, op., 3 Physiology, op., 2	English, 4 Algebra, 5 French or German or Latin, 5 Ancient History, 3 Physiology, 2 Additional language, op., 5
10 B	English, 4 Geometry, 5 Latin, 5 Greek, 5 French or German, op., 5 Roman History, op., 3	English, 4 Geometry, 5 Latin, 5 French or German, 5 Roman History, op., 3 Physiology, op., 2	English, 4 Geometry, 5 French or German or Latin, 5 Roman History, 3 Physiology, 2 Additional language, op., 5
11 A	English, 4 Geometry, 5 Latin, 5 Greek, 5 French or German, 5 Physics, optional, 5 Modern History, op., 3	English, 4 Geometry, 5 Latin, 5 French or German, op., 5 Physics, 5 Modern History, op., 3	English, 4 Geometry, 5 French or German or Latin, 5 Physics, 5 Modern History, 3 Additional language, op., 5

GRADE	CLASSICAL	TECHNICAL	GENERAL
II B	English, 4 Algebra, 4 Latin, 5 Greek, 5 French or German, 5 Physics, optional, 5 Modern History, op., 3	English, 4 Algebra, 4 Latin, 5 French or German, op., 5 Physics, 5 Solid Geometry, 4	English, 4 Algebra, 4 French or German or Latin, 5 Physics, 5 Modern History, 3 Additional language, op., 5
12 A	English, 4 Latin, 5 Greek, 5 French or German, 5 Chemistry, op., 5	English, 4 Latin, 5 French or German, op., 5 Chemistry, 5 Trigonometry, 4	English, 4 French or German or Latin, 5 Chemistry, 5 Stenography, 3 } or Typewriting, 2 } Bookkeeping, 5 Additional language, op., 5
12 B	English, 4 Latin, 5 Greek, 5 French or German, 5 Chemistry, op., 5	English, 4 Latin, 5 French or German, op., 5 Chemistry, 5 Astronomy, optional, 3	English, 5 French or German or Latin, 5 Chemistry, 5 Stenography, 3 } or Typewriting, 2 } Bookkeeping, 5 Additional language, op., 5 Astronomy, optional, 3

Drawing optional except for those desiring to enter the Training School.

Physical Training required of all.

Other courses than those specified above may be arranged to meet the needs of individual pupils.

All pupils who are candidates for a diploma are required to take work aggregating not less than nineteen periods per week of subjects requiring preparation.

Certain variations may be noted. Washington, D.C., for instance, in addition to the classical and scientific courses, offers a modern language and a history course, as follows:—

	MODERN LANGUAGE	HISTORY
1st Year	English I, 5 Algebra, 5 History (Anc.), 4 German I, 5	English I, 5 Algebra, 5 History (Anc.), 4 (Elect one) Latin I, 5 German I, 5
2d Year	English II, 4 Pl. Geometry, 4 German II, 5 (Elect one) { French I, 5 Physics I, 5 Chemistry I, 5 Biology I, 5 History (Med.), 4	English II, 4 History (Med.), 4 Pl. Geometry, 4 (Elect one) Latin II, 5 German II, 5
3d Year	English III, 4 { French II, 5 or Physics II, 5 or Chemistry II, 5 or Biology II, 5 (Elect two from different groups) German III, 4 { French I, 5 Latin I, 5 Spanish I, 5 Solid Geom. and Trig., 5 History (Mod.), 4	English III, 4 History (Mod.), 4 (Elect one from each group) { Latin III, 4 German III, 4 German I, 5 French I, 5 { Physics I, 5 Chemistry I, 5 Biology I, 5

	MODERN LANGUAGE	HISTORY
4th Year	English IV, 4	English IV, 4
	(Elect three from different groups)	American History, 4
	German IV, 4	Civics and Economics, 4
	French III, 4	(Elect one)
	{ French II, 5	{ Latin IV, 4
	{ Latin II, 5	{ German II or IV, 5 or 4
	{ Spanish II, 5	{ French II or IV, 5 or 4
	{ College Algebra & Analytics, 5	
	{ American History, 4	
	{ Physics I, 5	
	{ Chemistry I, 5	
	{ Biology I, 5	

Minneapolis, Minn., designates its three academic courses: English, Latin, Literary. The adjustment of the curriculum to local conditions is seen in the appearance of Swedish and Norwegian as optional languages in the last three years of the Literary course.

St. Louis, Mo., combines its subjects into six courses, thus: —

Art: Requiring drawing and history of art; no foreign language until third year.

General } Giving choice between Latin and modern languages.
Scientific }

Classical } Requiring Latin, Greek, and a modern lan-
College Classical } guage.

College Scientific: Requiring Latin and a modern language.

Los Angeles, Cal. in its Hollywood High School offers eight academic courses, and in the

Los Angeles High School schedules no less than twelve distinct courses, as follows:—

- | | |
|---|---|
| A. Classical | } Preparing
for the
University
of California,
Stanford, and
Eastern
colleges. |
| B. Latin | |
| C. Latin and Modern
Languages | |
| D. Mechanical Mining
and Civil Engineering
and Chemistry | |
| E. Architecture | |
| F. Fine and Applied Arts : Preparing for University of California. | |
| G. Fine and Applied Arts : Preparing for Mark Hopkins, Pratt Institute, and Chicago Institute of Art. | |
| H. Modern Language | } Preparing for Stanford University. |
| I. General Science | |
| J. English | |
| K. History and Economics | } Not fully preparing for college. |
| L. Music and English | |

So liberal has become the degree of choice offered to pupils, that many of the high schools think of their courses in terms of options rather than of requirements. Formerly they said to the student: This is the course, except that at certain points you may, if you wish, substitute certain subjects for those required. Now they say: These are the subjects; take what you wish of them, ex-

cept that at certain points you must take what we prescribe. The flexibility of the present-day curriculum is such that the requirements for a diploma of graduation are usually stated in a total number of weekly hours or in a total number of "points" based upon hours. The general scope of the typical high school course may be better presented by the following concise summary of the Chicago course:—

SUBJECTS OFFERED, WITH NUMBER OF HOURS PER WEEK.

GRADUATION UPON 80 WEEKLY HOURS

SUBJECTS	YEAR			
	I	II	III	IV
English	4	4	4	4
Latin	4	5	5	5
German	4	5	5	5
French	4	5	5	5
Spanish	4	5	5	5
Mathematics	4	4	4	4
Science	10	6	6	6
Commercial Studies	6	6	6	4
Manual Training	8	8	—	—
Sewing	8	8	—	—
Drawing	2	2	2	2
Music	1	1	1	1
Physical Education	1	1	1	1
History	—	4	4	4
Greek	—	—	5	5
Cooking	—	—	8	8

English includes Classics, Grammar, Composition, Rhetoric, with History of Literature in III and IV.

Mathematics is Algebra (I), Plane Geometry (II), Advanced Algebra or Solid Geometry (III), and Trigonometry or Arithmetic (IV).

Science is Physiology (required) and Physiography (I), Biology (II), Physics or Chemistry (III) and (IV), Geology or Astronomy (IV).

Commercial Studies are Arithmetic, Bookkeeping, Business Forms, Penmanship (I), Stenography and Typewriting, or Accounting (II), Commercial Geography (III), Commercial Law and Economics (IV).

Almost universally the American high school course extends over four years. In a few instances a preparatory year or two is offered, as by Providence, R.I., in its Hope Street High School. This school offers all courses found in the Classical and English high schools. It also gives opportunity for pupils who have completed six years of elementary school work, with extra credit, to take a two years' junior course before the regular high school work begins.

The work of these two junior years is as follows:—

<i>Junior I</i>	<i>Junior II</i>
Arithmetic 4 ¹	Arithmetic 4 ¹
Geography 3 ²	French 2½
History 2	History 2½
Spelling 2	Language 5 ²
Language 5 ¹	Physiology 2 ¹
French 5 ¹	Latin 5 ¹
Drawing 1 ¹	

¹ One lesson per week unprepared.

² Two lessons per week unprepared.

On the other hand, some high schools make a point of preparing for college in three or three and a half years. In New York, Townsend Harris Hall, connected with the College of the City of New York, a municipal institution, prepares for the college in three years. It conducts four parallel courses, as follows: —

	ARTS I				ARTS II			
	CLASSES				CLASSES			
	C	B	A	Total	C	B	A	Total
	Hours	Hours	Hours		Hours	Hours	Hours	
English	5	4	4	13	5	4	4	13
Latin	5	5	5	15	5	5	5	15
Greek	—	5	5	10	—	—	—	—
French	—	—	—	—	—	5	5	10
French or German	—	—	5	5	—	—	—	—
German	—	—	—	—	—	—	5	5
Mathematics	5	5	2	12	5	5	2	12
History	3	3	2	8	3	3	2	8
Drawing	5	1	1	7	5	1	1	7
Physical Instruction	—	1	1	2	—	1	1	2
	23	24	25	72	23	24	25	72

	ARTS III				SCIENCE			
	CLASSES				CLASSES			
	C	B	A	Total	C	B	A	Total
	Hours	Hours	Hours		Hours	Hours	Hours	
English	5	4	4	13	5	4	4	13
French	5	5	5	15	5	5	5	15
German	—	5	5	10	—	5	5	10
Spanish	—	—	5	5	—	—	—	—
Mathematics	5	5	2	12	5	5	5	15
History	3	3	2	8	3	3	—	6
Drawing	5	1	1	7	5	1	1	7
Physics	—	—	—	—	—	—	4	4
Physical Instruction	—	1	1	2	—	1	1	2
	23	24	25	72	23	24	25	72

GERMANY

By sharp contrast with the flexibility of the American curriculum, the German courses are extremely rigid. Those prescribed for the three kinds of secondary school follow. It will be seen that, within each schedule, there are practically no options. The figures given represent number of hours per week, but in actual practice the school hour may be but little more than forty minutes.

GYMNASIUM

YEAR	1	2	3	4	5	6	7	8	9	TOTAL
Religion	3	2	2	2	2	2	2	2	2	19
German	4	3	3	2	2	3	3	3	3	26
Latin	8	8	8	8	8	7	7	7	7	68
Greek	—	—	—	6	6	6	6	6	6	36
French	—	—	4	2	2	3	3	3	3	20
History	—	—	2	2	2	2	3	3	3	17
Geography	2	2	2	1	1	1	—	—	—	9
Mathematics	4	4	4	3	3	4	4	4	4	34
Natural Science ¹	2	2	2	2	2	2	2	2	2	18
Writing	2	2	—	—	—	—	—	—	—	4
Drawing	—	2	2	2	2	—	—	—	—	8
Singing	2	2	—	—	—	—	—	—	—	4
Gymnastics	3	3	3	3	3	3	3	3	3	27
Total	30	30	32	33	33	33	33	33	33	290

¹ In years 5-9, physics, chemistry, etc. Hebrew optional for three years.

REALGYMNASIUM

YEAR	1	2	3	4	5	6	7	8	9	TOTAL
Religion . .	3	2	2	2	2	2	2	2	2	19
German . .	4	3	3	3	3	3	3	3	3	28
Latin . .	8	8	7	5	5	4	4	4	4	49
French . .	—	—	5	4	4	4	4	4	4	29
English . .	—	—	—	3	3	3	3	3	3	18
History . .	—	—	2	2	2	2	3	3	3	17
Geography .	2	2	2	2	2	1	—	—	—	11
Mathematics .	4	4	4	5	5	5	5	5	5	42
Nat. Science .	2	2	2	2	2	4	5	5	5	29
Writing . .	2	2	—	—	—	—	—	—	—	4
Drawing . .	—	2	2	2	2	2	2	2	2	16
Singing . .	2	2	—	—	—	—	—	—	—	4
Gymnastics .	3	3	3	3	3	3	3	3	3	27
Total . .	30	30	32	33	33	33	34	34	34	293

OBERREALSCHULE

YEAR	1	2	3	4	5	6	7	8	9	TOTAL
Religion . .	3	2	2	2	2	2	2	2	2	19
German . .	5	4	4	3	3	3	4	4	4	34
French . .	6	6	6	6	6	5	4	4	4	47
English . .	—	—	—	5	4	4	4	4	4	25
History . .	—	—	3	2	2	2	3	3	3	18
Geography .	2	2	2	2	2	1	1	1	1	14
Mathematics .	5	5	6	6	5	5	5	5	5	47
Nat. Science .	2	2	2	2	4	6	6	6	6	36
Writing . .	2	2	2	—	—	—	—	—	—	6
Freeh'nd Draw. ¹	—	2	2	2	2	2	2	2	2	16
Singing . .	2	2	—	—	—	—	—	—	—	4
Gymnastics .	3	3	3	3	3	3	3	3	3	27
Total . .	30	30	32	33	33	33	34	34	34	293

¹ Mechanical Drawing, 2 hours in 5-9, optional.

One particularly commendable feature of the German secondary school is that no student may be graduated who is deficient in the mother tongue.

That the inflexibility of their curriculum is recognized by Germans as a disadvantage is shown by the efforts being made to reform the condition. One instance is the experiment at Frankfort, where the gymnasial program in the so-termed Reform School is as follows:—

	1	2	3	4	5	6	7	8	9	TOTAL
Religion . . .	3	2	2	2	2	2	2	2	2	19
German . . .	5	4	4	3	3	3	3	3	3	31
Latin . . .	—	—	—	10	10	8	8	8	8	52
Greek . . .	—	—	—	—	—	8	8	8	7	31
French . . .	6	6	6	3	2	2	2	2	2	31
Hist. and Geog.	2	2	6	3	4	2	2	2	3	26
Mathematics .	5	5	5	4	4	3	3	3	3	35
Natural History	2	3	3	2	2	—	—	—	—	9
Physics . . .	—	—	—	—	—	2	2	2	2	10
Writing . . .	2	2	—	—	—	—	—	—	—	4
Drawing . . .	—	2	2	2	2	—	—	—	—	8
Singing . . .	2	2	—	—	—	—	—	—	—	4
Gymnastics .	3	3	3	3	3	3	3	3	3	27
Total . . .	30	30	32	33	33	32	32	33	33	288

“The chief practical advantage expected from placing French first and postponing Latin for three years is that parents may delay their deci-

sion as to the type of secondary education their children shall have. The reform plan also makes it easier for pupils to enter the Gymnasium from the elementary schools.”¹

The work of the girls' secondary schools extends over ten years,² and the character of the course may be understood from the following summary of the total number of hours per week for the entire ten years.

	GYMNASIUM	REAL- GYMNASIUM	OBERREAL- SCHULE
Religion	23	23	23
German	38	38	44
Latin	36	36	—
Greek	32	—	—
French	34	38	44
English	10	22	28
History	18	18	18
Geography	14	14	15
Mathematics	32	36	39
Nature	23	31	32
Writing	3	3	3
Drawing	12	20	20
Needlework	6	6	6
Singing	8	8	10
Gymnastics	27	27	27
Total	316	320	309

¹ Charles DeGarmo, "Principles of Secondary Education — The Studies," Macmillan, 1907, p. 245.

² See p. 102.

FRANCE

In France, the reform program of 1902 marked "the passing of the classics, not as an instrument of general culture, but as the sole medium by which that general culture could be attained." "France has come out boldly and recognized, at least officially, the exact parity between the scientific education and the classical education. 'Scientific humanism has won the right of sitting side by side with literary humanism.'"¹ In fact, France has gone a step farther than have the American colleges, in that a single baccalaureate degree has replaced the old-time bachelor of arts and bachelor of science. The French secure flexibility of curriculum through a peculiar arrangement. The seven years of the secondary program are divided into two cycles, the first of four years, and the second, whose three years is again broken at the end of two. In the first cycle there is choice of two courses, classical and scientific; in the second, a choice of four courses in both subdivisions of the cycle. Schematically, the arrangement is this:—

¹ Farrington, "French Secondary Schools," p. 124, in chapter on "The Program."

FIRST CYCLE				SECOND CYCLE			
YEAR:	1	2	3	4	5	6	7
{ A. Classical Course } { B. Scientific Course }				{ A. Latin-Greek B. Latin-Modern Language C. Latin-Science D. Science-Modern Language }			{ Philosophy { A. B. } Mathematics { A. B. }

The weekly hour table follows:—

FIRST CYCLE—YEARS 1-4

	DIVISION A				DIVISION B			
	I	II	III	IV	I	II	III	IV
French	3	3	3	3	5	5	5	4
Latin	7	7	6	6	—	—	—	—
Modern Languages	5	5	5	5	5	5	5	5
History and Geography	3	3	3	3	3	3	3	3
Mathematics	2	2	2	3	4	4	5	5
Natural Science	1	1	1	—	2	2	—	1
Drawing	2	2	2	2	2	2	2	3
Writing	—	—	—	—	1	1	—	—
Ethics	—	—	1	1	—	—	1	1
Greek (optional)	—	—	(3)	(3)	—	—	—	—
Physics and Chemistry	—	—	—	—	—	—	2	2
Civil Government and Common Law	—	—	—	—	—	—	2	2
Totals	23	23	23 (3)	23 (3)	22	22	23	25

SECOND CYCLE — YEARS 5-6

	SECTION A		SECTION B		SECTION C		SECTION D	
	I	II	I	II	I	II	I	II
French	3	3	3	3	3	3	3	3
Latin	4	5	4	3	4	3	—	—
Greek	5	5	—	—	—	—	—	—
Modern History	2	2	2	2	2	2	2	2
Ancient History	2	2	2	2	—	—	—	—
Geography	1	1	1	1	1	1	1	1
Modern Languages	2	2	7	7	2	2	7	7
Mathematics	2	1	2	1	5	5	5	5
Physics and Chemistry	1	1	1	1	3	3	3	3
Physics and Chemistry, laboratory	—	—	—	—	2	2	2	2
Drawing	2	(2)	2	(2)	4	4	4	4
Optional Latin	—	—	—	(2)	—	—	—	—
Optional Mathematics	—	(2)	—	(2)	—	—	—	—
	24	22	24	20	26	25	27	27

SECOND CYCLE — YEAR 7

	PHILOSOPHY		MATHEMATICS	
	Section A	Section B	Section A	Section B
Philosophy	8½	8½	3	3
Greek-Latin	(4)	—	—	—
Latin	—	(2)	—	—
Modern Languages	(2)	3½	2	3½
History and Geography	3½	3½	3½	3½
Mathematics	2½	2½	8	8
Physics and Chemistry	3	3	5	5
Natural Sciences	2	2	2	2
Physics and Chemistry, laboratory	—	—	2	2
Drawing	(2)	(2)	2 + (2)	2 + (2)
Total	19½ (8)	22½ (4)	27½ (2)	28½ (2)

1½ hours of which may be pupil's own selection.

ENGLAND

In England the only limitation placed upon the freedom of each school to devise its own course of study is the necessity of complying with certain governmental regulations in order to secure State aid.

The prescription of the Board of Education is as follows:—

“The obligatory subjects of the course are the English language and literature, at least one language other than English, geography, history, mathematics; science, and drawing. A curriculum including two languages other than English, but making no provision for instruction in Latin, will only be approved where the Board are satisfied that the omission of Latin is for the educational advantage of the school.

“Provision must be made in all the schools for organized games, physical exercises, manual instruction, and singing. Schools for girls must offer practical instruction in domestic subjects, such as needlework, cookery, laundry work, house-keeping and household hygiene; for girls over fifteen years of age an approved course in a com-

bination of these subjects may be substituted, partially or wholly, for science and for mathematics other than arithmetic."

JAPAN

The Japanese Middle School program is as follows:—

	I	II	III	IV	V
Morals	1	1	1	1	1
Language and Chinese Literature . . .	7	7	7	6	6
Foreign Language	6	6	7	7	7
History and Geography	3	3	3	3	3
Mathematics	4	4	4	4	4
Natural Sciences	2	2	2	1 ²	—
Physics and Chemistry	—	—	—	3 ¹	4
Law and Economics	—	—	—	—	2
Drawing	1	1	1	1	—
Singing	1	1	1	—	—
Gymnastics	3	3	3	3	3
Total	28	28	29	30	30

CHAPTER XV

HIGHER EDUCATION

"The university touches all human interests, is concerned with the past, the present, and the future, ranges through the whole history of letters, sciences, arts, and professions, and aspires to teach all systematized knowledge. More and more, as time goes on, and individual and social wealth accumulates, it will find itself realizing its ideal of yesterday, though still pursuing eagerly its ideal for to-morrow." — ELIOT, "University Administration," p. 254.

GREAT has been the development of the university curriculum since the days of ancient Rome. The measure of this development is, of course, but the measure of the advance in civilization, in the accumulation of scientific data, in the interest of humanity in research and experiment, and in the ability of the human mind to analyze and to generalize. Again, as in our review of secondary instruction, we must take account of the time-long contest between classics and science, between humanism and realism. Is it, indeed, stretching a point to date this back to the Roman university? Is not their grouping of grammar, rhetoric, and dialectic into the *triv-*

ium, and of arithmetic, geometry, astronomy, and music into the *quadrivium*, but the precursor of the modern contraposition of the humanities and the sciences? All that we have said as to the war between the two camps over the secondary schools is equally descriptive of the campaign in the university. The universities of the world constitute the battleground; and as we glance over that ground it would seem that the classical forces are strongest in conservative England and weakest in adventuring America. England is by no means given over to the orthodox, however, and the temper of the attack is illustrated by the following quotation from the pen of Mr. Norman Lockyer: "We must arrange our education in some way in relation to the crying needs of the time. The least little dip into the history of the old universities will prick the bubble of classical education as it is presented to us to-day. Latin was not learned because it had the most magnificent grammar of known languages. Greek was not learned in consequence of the transcendental sublimity of ancient Greek civilization. Both these things were learned because people had to learn them to get their daily bread, either as theologians

or doctors or lawyers, and while they learned them, the 'nature of things' was not forgotten."¹

In the United States, it was in 1868 that Cornell University was founded "in no small degree as an unconscious protest against the limitations of the traditional classical education."² This date, while significant, cannot be taken as at all definitive. The changes in the curriculum here, as abroad, have come about gradually.

From "the earliest to the latest record of the course of study in our colleges, an unbroken chain of development can be traced, a logical sequence of events can be established, and the causes that led to the inevitable consequence can be clearly shown."³ Harvard, Yale, Wesleyan, etc., "started as schools and became colleges through the improvement of their curriculum so as to give collegiate degrees, but the pupils were long considered as children."⁴ The earlier colleges were boarding schools; boys entered at about thirteen and were graduated at seventeen. "The college course was not at first for culture,

¹ "Education and National Progress," London, 1906, p. 227.

² Thwing, "Higher Education in America," p. 433. Also p. 434, "Cornell was organized to represent the democracy of learning and Johns Hopkins was organized to promote the higher and necessarily immediately narrow relationships of learning."

³ This is the thesis of Louis Franklin Snow, "The College Curriculum in the United States," New York, 1907, p. 11. Also p. 171: "If we trace our earlier collegiate impulses to Cambridge, to Oxford, and to Scotland, the later force is manifestly German in its origin."

⁴ Birdseye, "Individual Training in our Colleges," p. 5.

but was primarily for moral training, and next a strictly professional or semiprofessional course; on graduation the students were practically prepared for their professional life; and their preparation was relatively magnificent, and the only one that could be obtained in the colonies."¹ "For almost two hundred years after the foundation of Harvard College its course of study remained, in essential elements, unchanged. . . . But, beginning with the first decades of the nineteenth century, the course received significant enlargement. From that time to the present, the development has been constant."² "To-day science dominates our schools. Our colonial ancestors studied and taught in an atmosphere of religion which they had inherited from the Middle Ages. For centuries the pedagogic aim had been to point the road to Heaven."³ For almost two hundred years after the foundation of Harvard, nearly one-half of its graduates were clergymen.

"The ordinary 'college course' which has been handed down from generation to generation is purely conventional. It is a result of a series of compromises in trying to fit the traditional education of clergymen and gentlemen to the needs of men of a different social era. The old college course met the needs of nobody, and therefore was adapted to all alike."⁴

"The history of the studies which have constituted the educational course in the forty years is

¹ Birdseye, *ibid.*, p. 33.

² Thwing, "Higher Education in America," p. 300.

³ Colyer Meriwether, "Our Colonial Curriculum," Washington, 1907, p. 13. Mr. Meriwether gives extensive bibliography on his subject; also a table which is here quoted (p. 240).

⁴ Jordan, *op. cit.*, p. 124.

characterized by enlargement, by consequent variety of subjects, and by enrichment,"¹ says Presi-

COLLEGIATE STUDIES IN OUR COLONIAL PERIOD

	17TH CENTURY	18TH CENTURY
<i>Greek</i>	Translating; prose composition; grammar; Testament.	<i>Plus</i> Greek catechism.
<i>Latin</i>	Used as medium of communication.	Translating; composition and grammar.
<i>Semitic</i>	Hebrew; translating prose composition; grammar. Elementary Chaldee and Syriac.	Hebrew; translating prose composition; grammar.
<i>Mathematics</i> . . .	Arithmetic; geometry.	Arithmetic; geometry.
<i>History</i>	Very little.	Very little.
<i>Philosophy</i>	Logic; ethics.	Logic; ethics.
<i>English</i>	Rhetoric; composition; oratory (disputes); grammar.	Rhetoric; composition; oratory (disputes); grammar.
<i>Political Science</i> .	Politics (with ethics).	Politics (with ethics).
<i>Physics</i>	Elements.	Elements.
<i>Bible</i>	New Testament; theology; Old Testament.	New Testament (in Greek); theology; Old Testament (expounded).
<i>Romance languages</i>		Elementary French.
<i>Astronomy</i>	Elements.	Elements.
<i>Botany</i>	"Nature of plants."	Elements.

¹ "Education in the United States since the Civil War," p. 73.

dent Thwing. He calculates that the enlargement of the course of study has been sixfold, due to the "vastness of the enlargement of the field of knowledge itself." Among the chief additions have been general history, ancient and modern; economics, political science, and government; chemistry and kindred sciences; English literature; and the higher mathematics. Among the landmarks in the history of the collegiate curriculum are: economics introduced at Harvard in 1820, Yale in 1824, Princeton in 1830; professorship in modern languages established at Bowdoin, 1825; first chair of history established, at William and Mary, 1822, at Harvard, 1839, at Yale, 1865.

Whatever the arguments for and against the elective system, we must recognize the fact that at the present time it is to some degree at least the "prevailing condition at all well-equipped colleges."¹ This has necessitated the introduction of the "point" system in determining qualifica-

¹ Says President Eliot: "I have never known a student of any capacity to select for himself a set of studies covering four years which did not apparently possess more theoretical and practical merit for his case than the required curriculum of my college days." And Chancellor Brown makes this estimate: "On the whole, the enlargement of freedom is not working badly in its bearing on

tions for graduation. Fifteen hours of lectures and recitations per week is the minimum requirement. Thus sixty such units in four years is required for graduation; or if the year is divided into semesters, 120 points; or if into three terms, 180 points. The statement of the University of Indiana is typical: "A recitation or lecture is regularly fifty minutes in length, and the outside work of the student is estimated at an average of two hours for each class exercise. In laboratory work each exercise is from two to two hours and a half in length, with outside study to make it as nearly as possible equivalent in its demands to the conventional hour defined above." This university may also be taken as an average type as to the proportion of prescribed to elective work. Each student must pass in:—

A. Six hours of English Composition.

B. Three hours of hygiene.

C. Thirty hours of language—options of Greek, Latin, French, Spanish, German, and comparative philology.

classical studies. If fewer students are pursuing such studies because required to do so or under the pressure of tradition, more are pursuing them from deliberate choice, either their own or their advisors."

D. Fifteen hours of mathematics or physics — any one of five stated combinations may be chosen.

E. Fifteen hours in one of the remaining sciences — philosophy, chemistry, geology, zoölogy, botany, anatomy, physiology. At least ten hours of this shall be laboratory work.

F. Twenty-four hours from among history and political science, economics and social science, English literature, Greek literature in English, translation, philosophy, education, fine arts, history of English language.

It will thus be seen that 93 of the 180 hours required for the bachelor's degree (Indiana has three terms to the year) are prescribed. This prescription is only in general terms, for within each prescribed group, excepting the first two, are many options. Thus we may venture a general statement that the American student can secure his bachelor's degree from the average college in good standing upon the completion of four years' work in subjects the larger number of which he has himself selected.

Some institutions distinguish between the degrees of bachelor of arts and bachelor of science, granting one or the other according to the charac-

ter of the subjects pursued ; others make no such distinction. The University of Michigan confers the arts degree, except that "a student who has earned at least 60 of the 120 hours in mathematics and the physical and biological sciences may, at his option, receive the degree of Bachelor of Science, instead of Bachelor of Arts." The indeterminateness of the average college diploma is set forth by Dr. Flexner in flowing language : "On the face of the diploma there is usually nothing to show where in the wide universe of science or scholarship the individual's preference lay. . . . He may have adhered closely to the traditional classical scheme ; or he may have entirely ignored the humanities in favor of political science ; or he may have ignored all the sciences but one ; or he may have cultivated philosophy or modern literature ; or finally he may have made a sort of gentlemanly 'grand tour' through the capitals of the chief provinces of intellectual interest."¹

As the colleges make use of the point system in calculating quantity of work done by their students, so, too, "the colleges are largely adopting the free election or 'point' system of admission which has developed almost entirely since 1897. While

¹ *Op. cit.*, p. 32.

adopting the principle, the colleges differ in its application. . . . They agree in publishing a list of twenty to thirty subjects, to each of which a value (point) is attached, and candidates for admission must secure a certain number of points. But the colleges differ (*a*) as to the number of points to be offered, hence there is a difference in the amount of option afforded; (*b*) in their definition of the same subject; (*c*) in the method of rating subjects; (*d*) in making a distinction between elementary and advanced subjects; and most important of all (*e*) in not agreeing as to the meaning of the term 'point.'"¹

Prior to 1800 there were but three subjects required for admission to any American college. They were Greek, Latin, and arithmetic. There have been added: geography, at Harvard, 1807; English grammar, at Princeton, 1819; algebra, at Harvard, 1820; geometry, at Harvard, 1844; ancient history, at Harvard and Michigan, 1847; United States history, at Michigan, 1869; physical science, at Harvard, 1872; English literature, at Harvard, 1874; modern languages, at Harvard, 1875.

Most of the colleges accept for admission, without examination, graduates of recognized secondary schools. Usually there is a rigid system of "accrediting" these schools which maintains the standard of applicants at a high level.²

¹ Birdseye, "Individual Training," p. 122.

² The University of California, as an instance, publishes a list of public and private schools in the State of California, thus accredited, and prefixes the following

NOTE.—The accrediting of secondary schools is an accrediting of *schools* rather than of *subjects*. Any recommendations issued by the principals will be provisionally accepted by the University, subject to the following conditions:—

(1) Recommendations are to be issued only for the graduates of the regular courses of the school;

The elective system commends itself to those who favor collegiate coeducation. For by this means may the students of both sexes be kept together in the life of the college and at the same time be given instruction more specifically adapted to the individuals of both sexes. In many of the coeducational colleges there has been created the office of "Dean of Women," occupied by a woman of the faculty who devotes all, or nearly all, of her time to the interests of the women students. Under her guidance it may be possible for the student to secure for himself a curriculum that shall express a satisfactory compromise between

(2) Recommendations are to be based exclusively upon the regular work of the school and not upon private "coaching" or special examination;

(3) "Supplementary" recommendations — for work taken in the high school after the pupil's matriculation in the college or university — are not to be accepted in lieu of matriculation examinations;

(4) The status of every undergraduate student is probationary during his first year of residence in the University, and his final allowance of matriculation credit may depend upon his work during this probationary year;

(5) The scholarship records in the University of California of the first-year students from each of the accredited schools are kept in such a way as to show the scholarship standing of the school, as reflected by its representatives in the University; and this record is made use of in determining the status of the school as a possible candidate for future accrediting.

the two views, "on the one hand, that education of women should be determined principally by their function in perpetuating the life of the race, and, on the other hand, that as the laws of mind are identical for the two sexes the education of women should be the same as that of men."¹

¹ Talbot, *op. cit.*, p. vii. Also, at p. viii: "So far then as the social and economic arrangements of society allot to men and women different tasks, so far must the educational machinery be developed differently for the two sexes."

That Dean Talbot is by no means satisfied with the present opportunities offered to women is to be seen by her statement: —

"The following summary is given of the changes which seem necessary if the four years of college life are to perform any real function in the education of a woman: —

"1. The reconstruction of the physical training department, and an enlargement of its scope.

"2. The modification of the social and domestic features of the college life.

"3. The development of the professional or expert attitude of mind on the part of the student.

"4. The extension of personal relations between the faculty and the students outside of the classroom.

"5. The appointment of trained and practical experts in education to advise as to courses of study and methods of work and life.

"6. The introduction of new courses of study.

"7. A juster recognition of women in academic and intellectual fields" (p. 236).

As to 6, . . . "courses [which] would serve to introduce the scientific method into the vocation which most needs it, that of directing household and family life" (p. 242).

The curriculum of the American university, as distinguished from that of the college, may be characterized as one even more liberal in spirit. It is liberal in fact only as the resources of the particular institution enable it to live up to its aim to offer advanced courses in all departments of human learning. The instructions issued by the University of Colorado may fairly be taken as indicative of the spirit and policy of the better equipped institutions.

Admission

Graduates from any college or scientific school of good standing are admitted upon presentation of diploma and certificate of good character.

Upon entrance, the student confers with the Dean of the Graduate School regarding the selection of a chief subject of study; the minors are elected on consultation with the professor in charge of the major.

Candidates for the degree Doctor of Philosophy must have a reading knowledge of both French and German. Candidates for the degree Master of Arts must have a reading knowledge of French or German, but the professor in charge of the major subject may require both French and German.

Requirements for Degrees

Candidates for the degree Master of Arts or Doctor of Philosophy must present credits for at least one year's residence at this University, and evidence of having completed

a course of study approved by the Dean and Graduate Committee.

Master of Arts.—The work required is one full year. Six copies of the Master's thesis or dissertation, printed or typewritten and bound, are to be placed in the University library.

Doctor of Philosophy.—The work required is three years of residence, which shall include as a minimum, 5 semesters of 12 hours each and a thesis. The first two years may be spent at other universities in actual residence; or the first two years may be done here and the third spent in the preparation of a thesis at some approved university.

The thesis for the Doctor's degree must show power in original investigation; it is printed and one hundred and fifty copies placed in the University library for the use of the University.

Students applying credits from other universities should bring letters from their instructors showing quality and amount of work. The final examination covers all subjects presented for the degree, whether done here or elsewhere.

Instruction

Students admitted to the Graduate School may pursue any course in the College of Liberal Arts, College of Engineering, and professional schools for which they are qualified.

The Graduate Faculty does not put hindrances in the way of mature students; almost any reasonable program of study will be approved if it forms a consistent plan of work or is to be pursued with some definite aim.

But courses will be counted towards a degree only when recommended for that purpose by the professors in charge of such courses.

The courses of study offered especially to graduate students may be grouped as follows : —

- I. Greek Language and Literature.
- II. Latin Language and Literature.
- III. Germanic Languages and Literature.
- IV. Romance Languages and Literatures.
- V. Literature (in English).
- VI. English Language.
- VII. Mathematics.
- VIII. Civil Engineering.
- IX. Electrical Engineering.
- X. Mechanical Engineering.
- XI. Physics.
- XII. Chemistry.
- XIII. Biology.
- XIV. Geology.
- XV. Philosophy.
- XVI. Psychology.
- XVII. Education.
- XVIII. History.
- XIX. Law.
- XX. Social Science.
- XXI. Music.

The degrees of Doctor of Philosophy and Doctor of Science from the better-class universities are held in high esteem. The character of the work demanded is well expressed by the University of Michigan circular: "It is not intended that the doctor's degree shall be won merely by

faithful and industrious work for a prescribed time in some assigned course of study. The candidate must also evince ability to carry on independent research." The proof of this ability and the fruit of the student's work is the thesis. "The thesis is of great importance. It must exhibit creditable literary workmanship, and a good command of the resources of expression, but its acceptance depends more upon its subject matter than upon its formal or rhetorical qualities. It must be an original contribution to scholarship or to scientific knowledge. The inquiry should be confined within narrow bounds. The treatment should be as concise as the nature of the subject permits, and show familiarity with the history of the problem treated, with the literature bearing upon it, and with the latest methods of research applicable to it. Every thesis should contain a clear introductory statement of what it is proposed to establish or investigate, and likewise a final résumé of results. It must be preceded by an analytical table of contents, with page references, and a full list of the authorities made use of. The larger divisions and the more important minor divisions should be indicated by suitable

headings. It is expected that the preparation of an acceptable thesis will usually require the greater part of an academic year."

The average American student is fourteen years of age upon graduation from the elementary school, eighteen upon graduation from the high school, and twenty-two from college. If now he prepares for a profession, he is twenty-five or twenty-six upon completing his professional schooling. Several years are required in specialization or in establishing himself in his profession, so that he virtually reaches middle age before his professional training can be said to be completed.¹ To modify this condition, without sacrificing any of the interests of true education, has been the thought of several university leaders and the object of some experiments with the traditional college course. The bachelor's degree is given to the student who, let us say, completes four years of three terms of twelve weeks, a total

¹ Of course, in many individual cases, this is not the schedule. A bright boy may graduate from elementary school at twelve, rush his preparatory work through in three years, graduate from college at nineteen, take a two-year law course, and "hang up his shingle" as he reaches his majority. But few, if any, can thus "short-cut" the route without missing along the way much that is necessary to a satisfactorily complete education.

of 180 college hours. Why not, it is asked, give him the opportunity of doing the same 180 hours of work in three years of four terms of twelve weeks? The question is answered both ways.¹ Thus far, few institutions have been willing to commit themselves openly to a three-year course,² though the exceptional student, insistent upon traveling faster than his colleagues, rarely fails to receive the opportunity and encouragement to do so. Several universities gain the extra year for their students by so combining the work of the last collegiate year and that of the first professional year as to reduce the length of the professional course.

President Thwing expresses the conservative thought as follows: "It is to be said that a year in one's life and in one's

¹ For a discussion of the length of the college course by Presidents Eliot, Harper, and Butler, and Dean West, see "Present College Questions," Appleton, 1903.

² To the contrary, the Massachusetts Institute of Technology, for example, offers a five-year course leading to the degree of Bachelor of Science, "designed to meet the needs of three different classes of students:—

"*First*: Those who wish to complete in five years the work of two allied courses.

"*Second*: Those who wish to combine with the work of a single professional course a larger proportion of humanistic studies and of work in general science.

"*Third*: Those who wish to distribute the work of a single course over five years without undertaking additional required studies."

professional career is of great value, and it is also to be said, and with emphasis, that a single year is not of value in comparison with the value of one's professional service. It is far better to enrich the value of that service than to lengthen out the time of that service by a few months."¹ President Harper opposed the proposition to reduce the course to three years, along these lines:—

1. It is a mistaken supposition that the college course is university work.

2. It is unnecessary to shorten the college course to provide for an extension of the professional course.

3. "The correct appreciation of the modern high school and its proper adjustment to the situation as a whole makes strongly against the proposed three-year course."

4. "It would be followed immediately by an increase of requirements for admission to the first year of college work."

5. It is based "upon the supposition that the essential thing is the time requirement."

6. It should "be opposed because of its deleterious influence upon the smaller colleges."

7. "For a boy who enters college at the right age, sixteen or seventeen, less than four years is too short a time."

8. It "ignores the culture value of the subjects in the first year of professional work."

9. It "subordinates the college almost wholly to the professional school."

10. "It is in general contrary to the drift of educational movements, and the very things which it proposes can easily be secured by other means."²

¹ "College Administration," p. 10.

² William R. Harper, "The Trend in Higher Education," Chicago, 1905, Chap. 22, The Length of the College Course.

Germany

At the German universities the spirit is such that the student "may study what he will, when he will, or need not study at all." No regular course of study is prescribed, each professor offering such courses of lectures as seem warranted. The student makes his selection, not only from among the lectures at any one university, but from those at several. The best idea of the extent of the opportunity open to students may be gained from the following tabulation of the number of teachers of all grades lecturing in all the German universities during the winter session of 1910-1911. (The university year is divided into winter and summer semesters.)

FACULTY	ORDINARY PROFESSORS		EXTRAORDINARY PROFESSORS		PRIVAT-DOCENTS
	Regular	Honorary	Regular	Honorary	
Evangelical Theology . .	123	4	35	1	31
Catholic Theology . . .	65	6	15	—	22
Law	180	17	52	1	60
Medicine	256	35	279	1	495
Philosophy	582	52	324	1	457
Science and Mathematics	67	9	72	—	49
Totals	1273	123	777	4	1114

The ordinary professors are highest in rank. The *Privatdocent* is peculiar to Germany. He "is the great source of vigor and renovation to her superior instruction. . . . The *Privatdocent* is an assistant to the professorate; he is free to use, when the professors do not occupy them, the university lecture rooms, he gives lectures like the professors, and his lectures count as professors' lectures for those who attend them. His appointment is on this wise. A distinguished student applies to be made *Privatdocent* in a faculty. He produces certain certificates and performs certain exercises before two delegates named by the faculty, and this is called his *Habilitation*. If he passes, the faculty names him *Privatdocent*. . . . He is then free to lecture on any of the matters proper to his faculty. He is on probation, he receives no salary whatever, and depends entirely on his lectures; he has, therefore, every motive to exert himself."¹

The extent of the work in a single university is to be seen by the following summary of the courses offered at Göttingen during the winter of 1910-1911:—

Theology	34	Natural Science	27
Law	54	Agriculture and Bacteri-	
Medicine	95	ology	20
Philosophy	14	Economics	6
Mathematics	22	Geography	6
Astronomy and Geology	11	History	15
Physics	19	Languages	55
Chemistry	30	Fine Arts	8
		Total	431

¹ Matthew Arnold, "Higher Schools and Universities in Germany," Macmillan, 1874, p. 155.

France

At the French Universities the degree of *licencié* is conferred only upon examination. The candidate must qualify in one of the following series:—

1. Philosophy: includes Latin translation, history of philosophy, general philosophy, psychology, logic, ethics, sociology, oral analysis of philosophical texts in German or in English.

2. History and Geography: Latin translation, ancient history, medieval history, modern history, contemporary history, geography, analysis of text in history or geography in English or German.

3. Classical languages and literatures: Greek, Latin, French.

4. Modern languages and literatures: Latin translation, language chosen by candidate.

England

The English university student has large options within well-defined limitations. For his B.A. degree he studies for three years or more, going up for examination when he deems himself prepared. At Oxford, where there are four

terms to the year, he must remain in residence at least twelve terms in order to qualify for the degree. He must then pass three successive groups of examinations: (1) Responsions, before the Masters of the schools; (2) the First Public Examination, before the Moderators; and (3) the Second Public examination, before the Public Examiners.

The University of London grants degrees to all persons who pass the prescribed examinations and pay the fees, whether they have prepared in a college or otherwise. For "internal" students the required study is 810 hours for the B.A. and 1260 for the B.Sc. For matriculation, the student must pass in English, elementary mathematics, and one from each of the following groups: (1) a foreign language; (2) history, geography, drawing; and (3) advanced mathematics, science. At the end of a year from matriculation he may take the Intermediate Arts examination, qualifying in each of these five groups: (1) Latin or Greek language and history; (2) French or German or the other language of (1); (3) pure mathematics or applied mathematics or physics or chemistry or botany or logic; (4) an-

other from (3), or history or Italian or Spanish; (5) English literature and essay. Two years later he may come up for his degree, qualifying in one subject in each of the following groups: (1) Latin, Greek; (2) Latin, Greek, English, French, German, Italian, Spanish, Russian, Sanskrit, Hebrew; (3) Pure mathematics, applied mathematics, physics, chemistry, botany, philosophy, economics; (4) Latin, Greek, French, German, pure mathematics, applied mathematics, physics, chemistry, botany, modern history, geography, education. These regulations are for the "Pass" degree. There is also an elaborate system of "Honors" to be gained by showing special scholarship in single groups of subjects.

Such institutions as Birmingham, Durham, Manchester, etc., however, more nearly resemble the American college than does either classic Oxford or Cambridge at one extreme or the London University with its licensing plan at the other. The regulations for the bachelor's degrees in arts and in science at Birmingham are typical, requiring three years of attendance on lectures. Also, "The work of candidates is estimated (1) by means of periodical exercises,

class examinations, and inspection of laboratory notebooks throughout the session, and (2) by means of examinations at the end of the session. At the end of each session every undergraduate is required to present a certificate of qualification, stating that he has attended to the satisfaction of the professors concerned not less than two thirds of the lectures, laboratory and exercise classes, and that he has passed such class examinations and performed such other exercises as his teachers may prescribe in connection with their own courses, to the satisfaction of the Faculty, before being admitted to the University Examination." At Durham, "Candidates for the 'Modern B.A. Pass Examination are required to keep nine terms, *i.e.* three academical years, and to pass an Intermediate Examination and a Final Examination."

The Intermediate Examination subjects are : (1) Religious knowledge or alternative ; (2) English language and literature ; (3) English history ; (4) Latin or Greek ; (5) French ; (6) German ; (7) mathematics (algebra, geometry, trigonometry).

The Final Examination subjects are : (1) Religious knowledge or alternative ; (2) English language and literature ; (3) Latin or Greek ; (4) French ; (5) German ; (6) modern history ; (7) mathematics ; (8) logic ; (9) psychology ; (10) education.

CHAPTER XVI

VOCATIONAL EDUCATION

"I have no hesitancy in declaring that the first and foremost duty of society, through the agency of the schools, is to make every boy and girl fit to make a living by means of some special knowledge or skill which society has need of." — GILLETTE, "Vocational Education," p. 95.

"An efficient system of industrial education can accomplish three things: it can raise the general average of intelligence; it can develop specialized talent; and it can offer the opportunity for genius to find itself." — PERSON, "Industrial Education," p. 26.

"The supreme thing after all is that men should be inducted into, not trained out of, the economic era in which they are called upon to live." — HERRICK, "Commercial Education," p. 14.

"No man, educated or uneducated, has a right to be useless. Most men will continue to earn and ought to earn in one way or another, the funds to pay their bills, and in this natural way will the world's work get done in the future as in the past. The education of all men, therefore, is, or should be, in a broad sense vocational, and the so-called learned professions are but other names for developed industries."¹ "Vocational education, more or

¹ Davenport, *op. cit.*, p. 15.

less unorganized and resting largely on native instincts and capacity, has always existed ; it tends to be organized under school conditions only where special demands or necessities exist; and from the standpoint of social necessity, vocational education given by some agency is indispensable.”¹ We might characterize vocational education of to-day by saying that it is in a state of transfer from one agency to another. In the past, specialized vocational training has been given chiefly through the home and through the apprentice system. Both of these agencies, under the stress of modern conditions, are rapidly failing as efficient trainers along vocational lines. Society is now looking toward its schools to take up the work which these other agencies are perforce abandoning. “In one form or another, . . . how to combine, in one educative process, the advantages of the school and the advantages of the apprentice system . . . has been the problem of all our education for special occupations in the past half-century.”²

That this problem is far from a solution goes

¹ Snedden, *op. cit.*, p. 13.

² Brown, “Government by Influence,” p. 48.

without the saying. It is comparatively easy to propound theoretical propositions in regard to the relation which the schools ought to bear to vocational training,¹ but as we look about upon the actual work now being done, we see that it is the future alone which holds in store the solution to this vexing fundamental problem. We must agree that "a chasm exists between our educational

¹ For example: "The first general principle to be observed is that the curriculum should have such subject matter and be so organized as to promote the professional esprit. Besides making the subject matter relate directly to the career for which the student is training, this result may be accomplished in three ways. First, the curriculum of the industrial school should have a distinct organization separate from the organization of schools with other aims with which it may be associated. This does not mean that, for a few subjects, students of the two schools may not attend the same classes; but such identity should be avoided as far as possible. . . . Second, the corps of instructors of the industrial school should be as distinct as possible, and should be thoroughly trained for instruction in technical subjects. . . . Third, the influence of the curriculum should be disciplinary in its own way, not only as to its influence on the methods of teaching and studying, but also as making for enthusiasm for work on the part of the student.

"The second general principle to be proposed is that the subject matter of the curriculum should be practical and technical. It should be descriptive rather than historical, practical rather than theoretical. . . .

"The third general principle is a more special statement of the second: the curriculum should be so comprehensive and flexible as to afford the student direct training for some specific occupation."—Person, *op. cit.*, p. 69 *et seq.*

system and our modern industrial life, and industrial education ought to bridge it.”¹ Here we may only take account, in a very general way, of the attempts already made to bridge this chasm.

Before the advent of compulsory education in the United States the boy or girl was free to leave school whenever his interest in money making became acute or the condition of the family exchequer seemed to demand it. There was no obvious connection between the elementary school with its satisfactory curriculum of the three R's and the training for specialized vocations. The school gave sufficient training for every employment of a general character. The enforcement of compulsory education laws now presents us with the problem of the boy who at the age of twelve shares with his parents the feeling that he has had ample schooling for the ordinary affairs of life as he expects to meet them and who resents remaining two years more in order to pursue, to him, a highly unpractical course of study. What to do with this boy — and his name is legion — is probably the furthest from solved of all the series of problems concerning vocational education.

¹ Dean, *op. cit.*, p. 319.

"The distinction between technical and cultural studies, at no point absolute, becomes more obscured in the higher stages of education."¹ Putting it the other way around, the problem may be most clearly stated as it concerns the lowest grade of schools; we might therefore expect it to have reached there its solution. But the vastly greater number of pupils involved at this stage has made it stupendous and complex, so that by comparison the work of the university in providing professional education is simplicity itself. Thus the problem, as nearly as it is at present understood, is practically solved in its highest and narrowest reaches, and practically untouched at its lowest and broadest level.

It is, then, at the secondary stage that we find at present the greatest activity. The past few years have yielded a recognition of the claims of high school pupils to a specialized training.² Hence do we find high schools in all parts of the country, especially in the large cities, which offer

¹ Brown, "The Making of Our Middle Schools," p. 461.

² "The remarkable development of our industrial and commercial schools represents the most conspicuous educational contribution of the United States. The freedom of choice by which a student upon entering the high school may, without the slightest

to their students differentiated courses aimed to fit them for special commercial¹ and general industrial careers.

Los Angeles, in its Polytechnic High School, conducts eighteen special courses, as follows :—

- | | |
|--|---------------------------|
| 1. Commerce. | 5. Surveying. |
| 2. Domestic Economics. | 6. Art. |
| 3. Electricity. | 7. Mechanical Draughting. |
| 4. Mineralogy. | 8. Architecture. |
| 9. Normal Course in Manual Training. | |
| 10. Pattern Making. | 13. Foundry. |
| 11. Dressmaking and Millinery. | 14. Cabinet Making. |
| 12. Forging. | 15. Machine Shop. |
| 16. College Preparatory — Stanford. | |
| 17. College Preparatory — University of California. | |
| (a) For matriculation in mechanical courses. | |
| (b) For matriculation in commercial, scientific, and agricultural courses. | |
| 18. Chemistry. | |

Even a curriculum aimed specifically to prepare pupils for vocations must fall short of complete realization so long as only the theoretical aspects of the subject are presented. The nearest to a solution—probably we should say the solution—loss of standing, elect any one of three or four possible courses has been of incalculable service to the country.”—Professor L. S. Rowe, in Commissioners’ Report, 1909, p. 326.

¹ See Herrick, *op. cit.*, pp. 350–370, for select bibliography on commercial education throughout the world.

of the problem has been attained at the University of Cincinnati, where Professor Herman Schneider "more than ten years ago saw the fallacy of trying to train a young man to do something without actually making him work at it. His plan was first applied to technical students in the University of Cincinnati and is this: In connection with the engineering department of the university there has been inaugurated a system of coöperation between the shops of the city and the university, whereby the shop takes charge of the practical training of the students and the university teaches the theory.

"By this method the university is relieved of the necessity of equipping its laboratories with expensive machinery, which in the course of ten or fifteen years may become obsolete, and the students are getting a practical training such as no school can possibly furnish. They are working in actual commercially operated plants, the hum of industry is on every hand, and push and go are necessary in order to hold one's place in the shop organization."¹

¹ W. B. Hunter, "The Fitchburg Plan of Industrial Education," Fitchburg, p. 3.

This plan has recently been instituted by the Fitchburg, Mass., High School, with every prospect of success. Only when this principle of coördinating the theoretical of the school with the practical of the shop or office is successfully applied to the elementary grade of instruction may we hope for complete solution of the vocational problem.

It remains now to present detailed schedules of vocational courses of various grades here and abroad.

IN THE UNITED STATES

SECONDARY SCHOOLS

Commercial

THE HIGH SCHOOL OF COMMERCE

NEW YORK CITY

First Year

REQUIRED	PERIODS PER WEEK	ELECTIVE	PERIODS PER WEEK
English	4		
German, French, or Spanish	4		
Algebra	4		
Biology ¹ (with especial reference to materials of commerce)	4		
Business Knowledge and Practice ²	6		
Drawing (second half year)	2		
Physical Training ¹	2		
Music	1		
	<u>27</u>		

¹ Including Physiology.

² Including Local Industries and Government of the City of New York 2
 Business Writing 2
 Business Arithmetic, Business Forms, and Methods 2

Second Year

REQUIRED	PERIODS PER WEEK	ELECTIVE	PERIODS PER WEEK
English	3	German, French, or Spanish	4
German, French, or Spanish .	4	Bookkeeping and Business	
Plane Geometry	3	Forms	3
Chemistry (with especial reference to materials of commerce)	4	Business Arithmetic . . .	1
History ¹ (with especial reference to economic history and geography)	3	Commercial Geography . .	1
Stenography	3		
Drawing and Art Study . .	2		
Physical Training	2		
	<u>24</u>		

¹ First half year, Beginning of Nations to 1300 A.D.; second half year, Modern History to 1750.

Third Year

English	3	German, French, or Spanish.	4
German, French, or Spanish .	4	Bookkeeping and Business	
Geometry and Algebra ¹ . .	3	Arithmetic	3
Physics	5	Stenography and Typewriting	3
History ² (with especial reference to materials of commerce)	3	Drawing and Art Study . .	2
Drawing and Art Study . .	1	Commercial Geography . .	1
Physical Training	2		
	<u>21</u>		

¹ In the second half year, students may elect additional Stenography and Typewriting or Bookkeeping in place of the second course in Mathematics, or may give double time to Mathematics by omitting either Stenography or Bookkeeping.

² First half year, English and Colonial History, 1620 to 1750. Second half year, Modern History (England and the Continent), 1750 to present time.

Fourth Year

REQUIRED	PERIODS PER WEEK	ELECTIVE	PERIODS PER WEEK
English	3	A Foreign Language	4
German, French, or Spanish .	4	Advanced Chemistry	4
Economics and Economic Geography	4	Economic Biology	4
History of the United States (with especial reference to industrial and constitutional aspects)	4	Trigonometry and Solid Geometry	4
Physical Training	2	Elementary Law and Com- mercial Law ¹	4
		Advanced Bookkeeping, Busi- ness Correspondence, and Office Practice	4
		Stenography and Typewriting	4
		Drawing and Art Study . .	4
		Modern Industrialism	1
	<u>17</u>		

¹ Students who do not elect law in the fourth year may receive instruction in Commercial Law in connection with Advanced Bookkeeping

In order to graduate from the High School of Commerce a student must have studied at least one foreign language for at least three years, have accomplished satisfactorily all the other required work, and have taken a sufficient number of elective studies so that the total amount of required and elective studies shall equal 3000 periods of work requiring preparation, and shall extend over not less than three years and not more than six years.

Industrial

BOSTON, MASS., HIGH SCHOOL OF PRACTICAL ARTS

PROGRAM OF STUDIES

First Year

REQUIRED	PERIODS PER WEEK	ELECTIVE	PERIODS PER WEEK
English	5		
History	3		
Mathematics, Applied Anthme- tic, Algebra	4		
Art	4		
Sewing	6		
Cooking and Housewifery . .	4		
Choral Practice	1		
Physical Training	2		
	<u>29</u>		

Second Year

English	4	Dressmaking	10
History	2	Millinery	10
Mathematics, Plane Geometry	2	Household Science	10
Chemistry	4		
Art	5		
Choral Practice	1		
Physical Training	2		
	<u>20</u>		<u>10</u>

Third Year

English	4	Dressmaking	10
History, Civil Government . .	4	Millinery	10
Physics	4	Household Science	10
Art	5		
Choral Practice	1		
Physical Training	2		
	<u>20</u>		<u>10</u>

Fourth Year

REQUIRED	PERIODS PER WEEK	ELECTIVE	PERIODS PER WEEK
English	5	Dressmaking	10
Household Accounts, one half year	2	Millinery	10
Home Nursing, one half year		Household Science	10
Economics	2		
Biology and Sanitation	3		
Art	5		
Choral Practice	1		
Physical Training	2		
	<u>20</u>		<u>10</u>

CINCINNATI, OHIO

First Year

BOYS' INDUSTRIAL	GIRLS' ART	GIRLS' INDUSTRIAL
English 4	English 4	English 5
Arithmetic and Algebra 4	Algebra 4	Arithmetic and Algebra 5
Industrial Geog- graphy 4	Botany or Zoology 5	Applied Art 5
Drawing 4	Art 10	Cooking 4
Turning, Pattern and Cabinet Making 16	Physical Training 2	Sewing 8
Phys. Train'g (Op.) 2	Music 1	Physical Training 2
	Elocution 1	Music 1

Second Year

English 4	English 4	English 4
Applied Mathematics 4	Geometry 5	Geometry and Arithmetic 4
Physics 4	French 4	Chemistry 5
Drawing 4	Art 10	Applied Art 2
Foundry Forge and Machine 16	History (Ancient) 4	Cooking and House- hold Arts 6
Physical Training (Op.) 2	Physical Training 2	Millinery and Dress- making 8
	Music 1	Physical Training 2
	Elocution 1	Music 1

Third Year

BOYS' INDUSTRIAL	GIRLS' ART	GIRLS' INDUSTRIAL
Chemistry 10	English 4	English 4
English 2	French 4	Physiology 4
Drawing 10	Art 10	Applied Art 5
Applied Mathematics, Shop Problems and Practice. . . 10	History (Med. and Mod.) 4	Elect Specialty . . . 20
Coöperative plan: alternate weeks in shop and school.	History of Art . . . 2	Millinery, etc.
	Physical Training . . 2	Dressmaking, Tailor- ing and Art Needle- work; Home Eco- nomics; Office Train- ing; Salesmanship.
	Music 1	
	Elocution 1	

Fourth Year

History (Industrial of U. S.) & Civics . 5	English 4	American History and Civics 5
Shop Science and Shop Practice . . 10	French 4	English 4
Drawing 10	Art 10	Applied Art 5
App. Mathematics and Shop Prob- lems 10	History of Art and Art Criticism . . . 4	Elect Specialty . . . 20
Coöperative Plan: Alternate weeks in shop and school.	Physiology & Hygiene 4	

There is also a commercial course; and of four academic courses, leading to colleges and professional schools, one is in Domestic Science.

LOS ANGELES, CAL.

TERM	V	VIII	XIII	XIV	XV
	SURVEYING	ARCHITECTURE	FOUNDRY	CABINET MAKING	MACHINE SHOP
1	1. English 2. Algebra 3. Mechanical Drawing 4. Woodshop 5. Gymnasium 6. Spelling	5. 1 English 2. Algebra 3. Arch. Drawing 4. Ancient History 5. Gymnasium 6. Spelling	5. 1 English 2. Algebra 3. Mechanical Drawing 4. Joinery 5. Spelling 6. Gymnasium	5. 1 English 2. Algebra 3. Mechanical Drawing 4. Woodshop 5. Spelling 6. Gymnasium	5. 1 English 2. Algebra 3. Mechanical Drawing 4. Forge 5. Gymnasium 6. Spelling
2	1. English 2. Algebra 3. Mechanical Drawing 4. Woodshop 5. Gymnasium 6. Music or Oral English	5. 1 English 2. Algebra 3. Arch. Drawing 4. Ancient History 5. Gymnasium 6. Music or Oral English	5. 1 English 2. Algebra 3. Mechanical Drawing 4. Pattern making 5. Gymnasium 6. Music or Oral English	5. 1 English 2. Algebra 3. Mechanical Drawing 4. Woodshop 5. Gymnasium 6. Music or Oral English	5. 1 English 2. Algebra 3. Mechanical Drawing 4. Machine Shop 5. Gymnasium 6. Music or Oral English
3	1. English 2. Algebra 3. Mechanical Drawing 4. Geometry 5. Health 6. Music or Oral English	5. 1 English 2. Geometry 3. Arch. Drawing 4. Woodshop 5. Health 6. Music or Oral English	5. 1 English 2. Arithmetic 3. Mechanical Drawing 4. Foundry 5. Health 6. Music or Oral English	5. 1 English 2. Arithmetic 3. Mechanical Drawing 4. Woodshop 5. Health 6. Music or Oral English	5. 1 English 2. Arithmetic 3. Mechanical Drawing 4. Machine Shop 5. Health 6. Music or Oral English
4	1. Algebra 2. Geometry 3. Mechanical Drawing 4. Forge 5. Gymnasium 6. Music or Oral English	5. 1 Arch. Drawing 2. Geometry 3. Woodshop 4. History of Architecture 5. Music or Oral English	5. 1 Mechanical Drawing 2. Bookkeeping 3. Foundry 4. Commercial Law 5. Gymnasium 6. Music or Oral English	5. 1 Bookkeeping 2. Commercial Law 3. Mechanical Drawing 4. Woodshop 5. Gymnasium 6. Music or Oral English	5. 1 Bookkeeping 2. Commercial Law 3. Mechanical Drawing 4. Machine Shop 5. Gymnasium 6. Music or Oral English

5	1. Physics 2. Geometry 3. Mechanical Drawing 4. Machine Shop 5. Gymnasium 6. Music or Oral English	71 Arch. Drawing 52 Applied Mathematics 103 Forge 104 History of Architecture 25 Music or Oral English	101 Physiology 2 Freehand Drawing 53 Physics 104 Foundry 5 Gymnasium 56 Music or Oral English	51 Physiology 2 Freehand Drawing 73 Physics 104 Woodshop 25 Gymnasium 6 Music or Oral English	51 Physics 2 Geometry 73 Freehand Drawing 104 Machine Shop 25 Gymnasium 6 Music or Oral English
	1. Physics 2. Chemistry 3. American History 4. Machine Shop 5. Gymnasium 6. Music or Oral English	71 Arch. Drawing 72 Trigonometry 3 Physics 54 American History 10 and Civics 25 Music or Oral English	101 Physiology 52 Freehand Drawing 73 Physics 4 Foundry 55 Gymnasium 6 Music or Oral English	51 Woodshop 2 Freehand Drawing 73 Physics 54 Machine Shop 25 Gymnasium 6 Music or Oral English	101 Physics 2 Geometry 73 Freehand Drawing 104 Machine Shop 25 Gymnasium 6 Music or Oral English
6	1. Chemistry 2. American History 3. 4. Surveying 5. Music or Oral English	71 Arch. Drawing 2 Mechanics 53 Physics 204 American History 25 Music or Oral English	101 Foundry 52 Economics 73 American History and Civics 54 Chemistry 5 Gymnasium 6 Music or Oral English	101 Woodshop 52 American History and Civics 53 Economics 74 Chemistry 25 Gymnasium 6 Music or Oral English	1 Chemistry 2 American History 53 Economics 74 Machine Shop 25 Gymnasium 6 Music or Oral English
	1. Economics 2. English 3. 4. Surveying 5. Music or Oral English	51 English 52 Arch. Drawing 203 Economics 4 Strength of Materials 5 Music or Oral English	51 Machine Shop 102 English 53 American History and Civics 54 Chemistry 5 Gymnasium 26 Music or Oral English	101 Woodshop 52 American History and Civics 53 English 74 Chemistry 25 Gymnasium 6 Music or Oral English	1 Chemistry 2 American History 53 English 54 Machine Shop 75 Gymnasium 26 Music or Oral English
7	1. Chemistry 2. American History 3. 4. Surveying 5. Music or Oral English	71 Arch. Drawing 2 Mechanics 53 Physics 204 American History 25 Music or Oral English	101 Foundry 52 Economics 73 American History and Civics 54 Chemistry 5 Gymnasium 6 Music or Oral English	101 Woodshop 52 American History and Civics 53 Economics 74 Chemistry 25 Gymnasium 6 Music or Oral English	1 Chemistry 2 American History 53 Economics 74 Machine Shop 25 Gymnasium 6 Music or Oral English
	1. Economics 2. English 3. 4. Surveying 5. Music or Oral English	51 English 52 Arch. Drawing 203 Economics 4 Strength of Materials 5 Music or Oral English	51 Machine Shop 102 English 53 American History and Civics 54 Chemistry 5 Gymnasium 26 Music or Oral English	101 Woodshop 52 American History and Civics 53 English 74 Chemistry 25 Gymnasium 6 Music or Oral English	1 Chemistry 2 American History 53 English 54 Machine Shop 75 Gymnasium 26 Music or Oral English
8	1. Economics 2. English 3. 4. Surveying 5. Music or Oral English	51 English 52 Arch. Drawing 203 Economics 4 Strength of Materials 5 Music or Oral English	51 Machine Shop 102 English 53 American History and Civics 54 Chemistry 5 Gymnasium 26 Music or Oral English	101 Woodshop 52 American History and Civics 53 English 74 Chemistry 25 Gymnasium 6 Music or Oral English	1 Chemistry 2 American History 53 English 54 Machine Shop 75 Gymnasium 26 Music or Oral English
	1. Economics 2. English 3. 4. Surveying 5. Music or Oral English	51 English 52 Arch. Drawing 203 Economics 4 Strength of Materials 5 Music or Oral English	51 Machine Shop 102 English 53 American History and Civics 54 Chemistry 5 Gymnasium 26 Music or Oral English	101 Woodshop 52 American History and Civics 53 English 74 Chemistry 25 Gymnasium 6 Music or Oral English	1 Chemistry 2 American History 53 English 54 Machine Shop 75 Gymnasium 26 Music or Oral English

Thirteen other courses are given, see p. 266.

HIGHER SCHOOLS

Commercial

THE AMOS TUCK SCHOOL

DARTMOUTH COLLEGE

Three years of undergraduate work must include

- (a) One year English composition ;
- (b) Two years French, German, or Spanish ;
- (c) Two years additional of language other than English, modern or classical : —
 - (a) One year history ;
 - (e) Two years economics.

This is followed by two years in the School in one of several optional, but related courses : General Business, Foreign Commerce, Banking, Transportation, Insurance, Accounting, etc.

The required work in the Consular Service Course is : —

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accounting	2	International Law . . .	3
French, German, or Spanish	2	French, German, or Spanish	2
Economic Geography . .	4	Resources and Industries	
Statistics	2	of the United States .	4
American Government .	3	Statistics	2
Money and Banking . .	3	American Diplomacy . .	3
National Industrial Efficiency	2	Commercial History and	
		Policy	3
	18		17

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
French, German, or Spanish	2	French, German, or Spanish	2
Commercial Law	2	Commercial Law	2
Business Management . .	2	Maritime Law	2
Foreign Commerce	2	Spanish-America and the	
Foreign Exchange	1	Far East	2
Advanced Commercial		Thesis (Consular Service)	6
Geography	2		
Thesis (Consular Service).	2		14
	13		

The ideals for the higher school of commerce stated by the Director of the School at the University of Wisconsin, where the experiment was inaugurated in 1900, are : —

1. Familiarity with the nature and working of the industrial organism ;
2. Acquaintance with articles of commerce and industrial processes ;
3. Knowledge of various branches of law ;
4. Training in languages ;
5. Knowledge of physical and chemical sciences.

Says Professor Jenks : "In current discussion, in the press and elsewhere, many of the more fundamental principles of commerce and the training which is requisite in order to enable our young men to cope with the problems which may arise in their business, have been adequately considered. It is generally conceded that besides the principles of accounting and cost keeping referred to, one should possess a fair knowledge of foreign exchange, a comprehensive outlook over the most

important markets for the purchase and sale of leading staple products, a reasonable understanding of shipping by water and rail routes, and the relative costs of different routes and classes of freights, an insight into the fundamental principles of commercial law, a sufficient knowledge of the languages of the countries in which one is to work, besides a detailed knowledge of the goods to be handled and the special requirements of the individual business, which can be learned, of course, only in the business itself." ¹

Technical

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

BOSTON, MASS.

Regular four-year courses of study leading to the degree of Bachelor of Science are offered in the following branches of science and engineering:—

- I. Civil Engineering.
- II. Mechanical Engineering.
- III. Mining Engineering and Metallurgy.
- IV. Architecture.
- V. Chemistry.
- VI. Electrical Engineering.
- VII. Biology.
- VIII. Physics.
- IX. General Science.
- X. Chemical Engineering.

¹ Jeremiah W. Jenks, "Citizenship and the Schools," Holt, 1909, p. 134.

- XI. Sanitary Engineering.
- XII. Geology and Geodesy.
- XIII. Naval Architecture and Marine Engineering.
- XIV. Electrochemistry.

In most of these courses distinct options are offered in the later years which enable the student to concentrate more of his attention upon some one side of his profession. In no case, however, is the specialization carried so far as to preclude a thorough training in all the fundamental branches of the subject. The more important of these options are as follows: —

CIVIL ENGINEERING.	<ul style="list-style-type: none">1. <i>Hydraulic Engineering.</i>2. <i>Railroad Engineering.</i>
MECHANICAL ENGINEERING.	<ul style="list-style-type: none">1. <i>Marine Engineering.</i>2. <i>Locomotive Construction.</i>3. <i>Mill Engineering.</i>4. <i>Heating and Ventilating Engineering.</i>5. <i>Steam Turbine Engineering.</i>
MINING ENGINEERING AND METALLURGY.	<ul style="list-style-type: none">1. <i>Mining and Metallurgy.</i>2. <i>Metallurgy.</i>3. <i>Mining Geology.</i>
ARCHITECTURE.	<ul style="list-style-type: none">1. <i>Architecture.</i>2. <i>Architectural Engineering.</i>
CHEMISTRY.	<ul style="list-style-type: none">1. <i>Analytical and Industrial Chemistry.</i>2. <i>Sanitary and Municipal Chemistry.</i>3. <i>Physical Chemistry.</i>
BIOLOGY.	<ul style="list-style-type: none">1. <i>Anatomy and Physiology.</i>2. <i>Sanitary and Industrial Biology.</i>

PHYSICS.	1. <i>Chemistry.</i>
	2. <i>Mathematics.</i>
GEOLOGY AND GEODESY.	1. <i>Geology.</i>
	2. <i>Geodesy.</i>

Agricultural

NEW YORK STATE COLLEGE OF AGRICULTURE

CORNELL UNIVERSITY

Regular course of four years leads to degree of Bachelor of Science in Agriculture.

The required subjects are :—

FIRST YEAR			SECOND YEAR		
	First Half	Second Half		First Half	Second Half
English	3	3	Geology or Physical		
Botany	3	3	Geography. . . .	3	3
Chemistry	6	5	Chemistry	6	—
Invertebrate Zoology	2	—	Soils	—	3
Vertebrate Zoology .	2	—	Physiology of Do-		
Entomology	—	3	mestic Animals .	—	3
Drawing	—	2	Physics	5	3
	16	16		14	12
			THIRD YEAR		
			Political Science .	3	3

The remainder of the work is made up of electives, at least two thirds of which must be taken in the College of Agriculture. These elective courses are in the following subjects :—

Botany	Farm Crops	Animal Husbandry
Veterinary Medicine	Horticulture	Poultry Husbandry
Agricultural Chemistry	Farm Mechanics	Rural Economy
Soils	Plant Pathology	Drawing
Plant Physiology	Entomology	Rural Art
Experimental Plant Breeding	Zoölogy	House Economics

One hundred and twenty hours' work in eight semesters is required for the degree.

"At present much of the agricultural instruction in the college is of secondary character. This has been made necessary because the secondary schools have hitherto neglected to give instruction in the subject of agriculture, and the colleges have been compelled to receive their students directly from the elementary or rural schools and prepare them for the real collegiate work. But since the secondary schools are beginning to take up the work of instruction in agriculture that they are best qualified to impart, the colleges are gradually raising their entrance requirements, and are discontinuing the strictly secondary work."¹

Professional

The State has not yet come to the point of giving education in the "learned" professions, nor is it likely to do so—obviously it could not conduct schools of theology. For the sake of completeness, however, a typical program in each of these three professions is appended.

"Students taking full courses in theology very generally have a college degree; of those in law probably one fourth have a college degree, and in medicine the proportion is much smaller, although a few medical schools now require a college degree, or its equivalent, for matriculation. In dentistry and pharmacy a college graduate is exceptional."²

"All the professional schools of a university ought to require the preliminary degree of Bachelor of Arts, or of Science, for admission; and only when this requirement has been suc-

¹ Bricker, *op. cit.*, p. 6.

² Report of Commissioner of Education, 1909, p. 1030.

cessfully enforced will the unorganized group of separate departments which now passes for a university in the United States be really converted into a true university."¹

Theology

PRINCETON THEOLOGICAL SEMINARY (PRESBYTERIAN)

The course of study occupies some one thousand four hundred and forty hours of instruction, and the accomplishment of the whole of this course is required for graduation. It is designed to cover three years of residence; and the courses of instruction which enter into it have been arranged with that end in view. This arrangement, which yields a regular weekly attendance upon classroom work of sixteen hours for three years of approximately thirty weeks each, is called "The Regular Course," and the students are strongly advised to adopt it. The following schedule embodies

THE REGULAR COURSE

First Year

	Hours
Hebrew	5
General Introduction to Apologetics	1
Theism	2
Introduction to the Old Testament	$\frac{1}{2}$
Old Testament History	$1\frac{1}{2}$
General Introduction to the New Testament	1
Exegesis of Paul's Epistles	1
Prolegomena to Theology and Theology Proper	2
English Bible	1

¹ Eliot, *op. cit.*, p. 41.

	Hours
Homiletics : Theory	I
Homiletics : Practice	[I]
Elocution	[I]
	<u>16</u>

Second Year

Evidences of Christianity	I
Introduction to the Old Testament	1½
The Poetical Books of the Old Testament	1½
Gospel History	2
Biblical Theology of the Old Testament	2
Church History	3
Anthropology and Christology	2
Ecclesiastical Theology	I
English Bible	I
Homiletics : Theory	I
Homiletics : Practice	[I]
Missions [alternate years]	[I]
City Visitation	[~]
	<u>16</u>

Third Year

Christian Ethics and Christian Sociology	5
Introduction to the Prophetical Books of the Old Testament	I
Exegesis of the Prophetical Books of the Old Testament	I
Apostolic History	2
Biblical Theology of the New Testament	2
Church History	3
Soteriology and Eschatology	2
Pastoral Theology	I
English Bible	I

	Hours
Homiletics: Theory	1
Homiletics: Practice	[1]
Missions [alternate years]	[1]
	16

Nevertheless, the hours of classroom work have been so adjusted, that if, for any reason, it seems best that four years should be occupied in accomplishing the course of study prescribed for graduation, this may be conveniently done.

Law

NEW YORK UNIVERSITY LAW SCHOOL

Candidates for the degree of Bachelor of Laws (LL.B.) are required to pursue courses which amount to twenty-six (26) hours of lectures weekly. These may be completed in two years with thirteen hours' work per week for each year, or divided over a longer period as the student may determine. If the work is taken entirely in the evening, thirty (30) hours weekly are required, distributed over three years with ten hours per week.

The courses offered are in the following subjects : —

First Year

- * Contracts
- * Torts
- * Property
- Code of Civil Procedure
- Personal Property
- * Common Law Pleading
- Sales
- Agency
- Statute of Frauds

Second and Third Year

- * Equity Jurisdiction
- Trusts
- Equity Pleading
- Mortgages
- Suretyship
- Advanced Property
- Partnership
- Quasi-Contracts
- Bailments and Carriers

First Year

Criminal Law
Damages

Second and Third Year

Corporations
Insurance
* Evidence
* Bills and Notes
Wills and Administration
Conflict of Laws
Constitutional Law
International Law
Patents
Bankruptcy
Admiralty
Public Service Companies
New Jersey Practice

Practice Courses : Surrogate's Court Practice.

Preparation for Trial and Trial of Civic
Actions.

Pleading and Election of Remedies under
the Code.

Evidence.

Subjects marked with a (*) are required. Others may be selected by the student, subject to approval by the Dean. In case any subject selected should be begun, but not completed, in any one year, the continuation of such subject must be taken in the following year.

Medicine

UNIVERSITY OF PENNSYLVANIA

PHILADELPHIA, PA.

The course of instruction extends over a period of four years, with one session in each year, beginning on the last Friday of September and ending on the third Wednesday in June.

The course may be said to be divided into two periods of two years each: the first period devoted to the fundamental medical sciences, Chemistry, Anatomy, Physiology, Bacteriology, Pharmacology, and Pathology, including also Physical Education; the second period to the clinical subjects, Medicine, Surgery, Obstetrics, and the specialties.

First Period

The subjects of the first two years have been arranged according to a modification of the concentration system. By this system the student is enabled to concentrate his energy upon one or two subjects, and must master these before he is allowed to continue the course. Thus the first year is devoted chiefly to anatomy, including embryology, normal histology, and osteology, and to physiological chemistry, and bacteriology.

The subjects of the second year follow in logical sequence those of the year preceding. The time of the second year is thus given over largely to physiology, pathology, pharmacology, and applied anatomy. In addition to these the work of the second year includes a course in physical diagnosis.

Instruction upon the subjects of the first two years is almost entirely practical, so that the greater part of the student's time is spent in the laboratories. In the new laboratories of Pathology, Physiology, and Pharmacology, which were opened in June, 1904, and in the bacteriological section of the laboratory of Hygiene, as well as in the older laboratories of Gross and Minute Anatomy, the students of this department are afforded unsurpassed facilities for practical work in these fundamental subjects.

Second Period

With the beginning of the third year the student enters upon the second period, which covers the third and fourth years,

and is devoted almost exclusively to instruction in the so-called clinical subjects — Medicine, Surgery, Obstetrics, and the specialties. There is no sharp dividing line between the work of the third and fourth years, so that the courses in the clinical subjects may be said to cover a period of two years.

IN GERMANY

SECONDARY

Technical

SCHOOL OF INDUSTRIAL ART

KAISERSLAUTERN

Woodworking Course

YEAR	1	2	3
German Language	4	4	—
Bookkeeping	—	—	4
Arithmetic	4	—	—
Geometry	—	2	—
Estimating Costs	—	—	2
Freehand Drawing	8	—	—
Drawing from Casts and Nature	—	4	4
Ornamental Forms	2	—	—
Geometrical Drawing	4	—	—
Projection and Shading	—	4	—
Perspective	—	—	2
Architectural and Ornamental Drawing	—	12	14
Practical Work	22	18	18

Similar courses are given in Ironworking, Stonecarving, Woodcarving, Chasing and Engraving, and Painting.¹

¹ For time-tables, see Report of Commissioner of Labor, Washington, 1902, p. 909.

Commercial

OEFFENTLICHE HANDELSLEHRANSTALT

LEIPZIG

General course, three years

REQUIRED	1	2	3
German	4	3	3
English Language and Correspondence	5	4	5
French Language and Correspondence	5	4	5
Mathematics	3	3	4
Mercantile Arithmetic	5	3	2
Physics	2	2	—
Technology	—	—	2
Chemistry	—	2	2
<i>Warenkunde</i> (materials of commerce)	—	—	1
General and Commercial Geography	2	2	2
General and Commercial History	2	2	2
Laws of Commerce and Exchange	—	2	1
Office Wcrk, Correspondence and Bookkeeping	—	3	3
Economics	—	—	2
Penmanship	2	2	—
Shorthand	2	1	1
Gymnastics	2	2	2
ELECTIVES			
Italian	—	2	2
Spanish	—	—	2

HIGHER EDUCATION

Commercial

HIGHER COMMERCIAL SCHOOL

BERLIN

Principal divisions of subjects : —

1. Political Economy.
2. Law.
3. Materials of commerce ; physics, chemistry, technology, industrial hygiene, etc.
4. Methods of Commercial Instruction (for those preparing for commercial teacherships).
5. Languages: English, French, Spanish, Italian, Russian, German.

Professional

See p. 255.

IN FRANCE SECONDARY

	MINISTRY OF PUBLIC INSTRUCTION										MINISTRY OF COMMERCE			
	HIGHER PRIMARY SCHOOLS										PRACTICAL SCHOOLS			
	General Section		Agricultural Section		Commercial Section		Industrial Section				Of Industry		Of Commerce	
	I	II	I	II	I	II	I	II	I	II	I	II	I	II
Moral Instruction	1	1	1	1	1	1	1	1	1	1	1	1	1	1
French	5	4	2	2	2	2	2	2	2	2	4	3	4	3
Writing	1	1	1	1	1	1	1	1	1	1	1	1	1	1
History and Civics	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Geography	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Modern Languages	3	3	—	—	2	2	—	—	—	—	—	—	—	—
Mathematics	4	3	2	2	4	4	3	3	3	3	6	4	6	4
Bookkeeping	—	1	1	1	3	3	2	2	2	2	3	3	3	3
Chemistry — Physics	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Natural History — Hygiene	1	1	2	2	2	2	2	2	2	2	1	1	1	1
Agriculture — Horticulture	1	1	3	3	—	—	—	—	—	—	—	—	—	—
Elementary Law, Political and Industrial Economy	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Drawing and Modeling	3	3	1	1	1	1	—	—	—	—	—	—	—	—
Manual or Agricultural Training	4	4	6	6	2	2	4	4	4	4	1	1	1	1
Gymnastics	2	2	2	2	2	2	2	2	2	2	—	—	—	—
Singing	1	1	1	1	1	1	1	1	1	1	—	—	—	—
Extra for special needs	—	—	3	3	4	4	2	2	2	2	—	—	—	—
Total	30	30	30	30	30	30	30	30	30	30	46	49	30	31
											51			33

HIGHER

Agricultural

INSTITUTE NATIONAL AGRONOMIQUE

PARIS

Courses : —

Rural economics	Agricultural forestry
Physics and meteorology	Graphical drawing
Geology applied to Agriculture	Analytic chemistry
Chemistry applied to Agriculture	Hippology
Technical Agriculture	Political economy
Biology of vegetables cultivated in France and colonies	Bookkeeping
Zoölogy	Applied mathematics
Mathematics	Arboriculture
Mechanics	Horticulture
Sylviculture	Vegetal pathology
Rural legislation and administrative law	Pisciculture
Zoötechny	Organic chemistry applied to agricultural products
Viticulture	Microbiology
Colonial cultivation	
Anatomy and physiology	

Technical

ÉCOLE CENTRALE DES ARTS ET MANUFACTURES

PARIS

Courses : —

Civil engineering	Public works
Applied mechanics	Industrial physics
Mechanical construction	Railroads

Steam engines	Applied hygiene
Analytic chemistry	General mechanics
Mining	Descriptive geometry
Industrial chemistry	General physics
Industrial electricity	General chemistry
General metallurgy	Analytical mathematics
Siderurgy	Mineralogy
Technical chemistry	Geology
Industrial legislation	Architecture
	Metal Construction

Professional

UNIVERSITY OF PARIS

Medicine

Clinics, throughout the mornings : medical ; mental pathology ; diseases of children ; skin diseases ; diseases of the nervous system ; therapeutics ; surgical obstetrics ; ophthalmological, gynecological, and infant surgery ; obstetrics.

Courses : —

FIRST YEAR : *Winter*. — Histology, physics, anatomy, biological chemistry.

Summer. — Physics, physiology, histology, chemistry.

SECOND YEAR : *Winter*. — Histology, physics, anatomy, physiology, external pathology.

Summer. — Internal and external pathology, topographical anatomy, histology, chemistry.

THIRD YEAR: *Winter*. — Surgical pathology, bacteriology, pathological anatomy, obstetrics, internal and external pathology, experimental pathology, medical pathology.

Summer. — External pathology, obstetrics, pathological anatomy, bacteriology, general pathology.

FOURTH YEAR: *Winter*. — Therapeutics, medical law, hygiene, pharmacology.

Summer. — Hygiene, history of medicine, pharmacology.

PRACTICAL WORK

Winter: Dissection, pathological anatomy, bacteriology.

Summer: Biological physics, biological chemistry, histology, pathological chemistry, operative medicine, obstetrics.

Law

Courses: —

FIRST YEAR: Roman law, civil law, general history of French law, political economy, elements of Constitutional law, personal rights.

SECOND YEAR: Civil law, administrative law, criminal law, political economy, Roman law, international public law.

THIRD YEAR: Civil law, commercial law, civil procedure, international private law, industrial legislation, public law, colonial legislation, maritime law, financial legislation.

Theology

INSTITUT CATHOLIQUE DE PARIS

Theology : General dogmatics, special dogmatics, fundamental moral theology, sacred scripture, ecclesiastical history, Christian sources and patristic theology, oriental languages.

Canonical Law : Decretals, public ecclesiastical law, history of canonical law.

Philosophy : Logic and metaphysics, psychology, ethics (general, individual, social), history of philosophy.

There is, in addition, one faculty in Law, one in Letters, and one in Science.

Protestant theology is given by the *Faculté libre de théologie protestante*.

IN ENGLAND

SECONDARY

Technical

MUNICIPAL SCHOOL OF ART

LEICESTER

Gives tuition to three classes of students : —

Craftsmen, to make workmen better workmen; *General Students*, for the cultivation of observation, appreciation, and knowledge of art; and *Teachers*, to qualify students who are, or intend to become, teachers to give instruction in art.

Courses are from one to three years, day and evening, as follows : —

1. For architects, builders, and others connected with building trades. Three years.
2. For lithographic artists. Two years.
3. For bookbinders.

4. For typographers.
5. For jewelers and metal workers.
6. For embroiderers and lace makers.
7. For modelers, plasterers, etc.
8. For house painters and decorators.
9. For woodcarvers, frame makers, etc.
10. For designers, stained glass workers, etc.
11. For draughtsmen, landscape and life painters.
12. General art course.
13. For teachers of drawing.

HIGHER

Commercial

UNIVERSITY OF MANCHESTER

Degrees of B. Com. and M. Com. Courses to be pursued at least three years.

Must satisfy in : —

1. Political Economy.
2. Geography.
3. Modern History.
4. A modern language.
5. Organization of industry and commerce.
6. Accounting.
7. Commercial law.
8. One or more special subjects from a large group in pure and applied science, economics, etc.

Technical

UNIVERSITY OF BIRMINGHAM

Three-year course in Pure Science.

Student must qualify at the end of the first year in three of : —

1. Pure mathematics.
2. Physics.
3. Chemistry.
4. Elementary Biology (Zoölogy and Botany).

In the second and third years he takes one principal and two subsidiary subjects or two principal subjects from the following :

Principal subjects, studied for two years : —

Mathematics, pure and applied	Botany
Physics	Physiology
Chemistry	Anatomy and Anthropology
Geology	Biology and Chemistry of fermentation
Zoölogy	

Subsidiary subjects, usually studied for one year : —

Pure mathematics	Zoölogy
Applied mathematics	Physiology
Elementary pure and applied mathematics	Logic
Physics	Psychology
Chemistry	Metallurgy
Geology	Mining
Botany	Engineering
	Chemistry of fermentation

The degree of B.Sc. in Applied Science is given on a four-year course, related somewhat to the foregoing. The student has choice of three general groups : —

- I. Engineering, in either
 - (a) Mechanical,
 - (b) Civil,
 - (c) Electrical.
- II. Metallurgy.
- III. Mining.

Professional
UNIVERSITY OF MANCHESTER
Medicine

FIRST YEAR : *Winter.* — Inorganic Chemistry, Physics, Zoölogy, Botany.

Summer. — Elementary Anatomy (including dissection). Elementary Organic Chemistry, Bio-Chemistry.

SECOND YEAR : *Winter.* — Anatomy, Physiology.

Summer. — Anatomy, Histology, Physiology.

THIRD YEAR : *Winter.* — Anatomy, Physiology, Pharmacology, Pathology, Practical Surgery.

Summer. — Practical Surgery, Therapeutics and Practical Pharmacy, Pathology, Hygiene.

FOURTH YEAR : *Winter.* — Medicine, Surgery, Pathology.

Summer. — Obstetrics, Ophthalmology, Mental diseases, diseases of the larynx.

FIFTH YEAR : *Winter.* — Medicine, Operative Surgery, Gynecology, Infectious diseases.

Summer. — Forensic medicine, Practical Toxicology, Diseases of Children, of Skin, of Ear, Tropical diseases.

Law

For LL.B. degree, two examinations must be passed, the first after one year in attendance ; the final after two years more.

The subjects of these examinations are : —
Intermediate :

1. Roman law.
2. Law and Custom of English courts.
3. Jurisprudence.
4. Logic, or Political Economy or Ancient History.

Final :

1. Real and personal property.
2. Principles of law of Contracts.
3. Principles of law of Torts.
4. Principles of Equity.

And, in more detail, one of : Succession (testamentary and intestate), Trusts, Bankruptcy, Crimes. Also for honors, one of : International law, Constitutional law, Conflict of Laws.

Theology

Degree of B.D. in two or three years according to preparation.

Preliminary examination in : —

1. Hellenistic Greek.
2. Elementary Hebrew.
3. A philosophical subject or science.
4. One of : Advanced Hebrew, Classical Greek, Hellenistic Greek, Latin, German, History, a science.

Final examination in :

1. English Bible.
2. Comparative Religion.
3. Biblical Criticism and Exegesis.
4. History of Doctrine.
5. Ecclesiastical History.
6. One of : Fundamental ideas of Religion, Semitic language other than Hebrew, Old Testament in Hebrew, New Testament in Greek, Epigraphy, Archæology, Special period ecclesiastical history, Patristic literature, a branch of Apologetics, Oriental History.

IN JAPAN
HIGHER COMMERCIAL SCHOOL
KOBE

The course of study, extending over four years, consists of the preparatory and the principal courses. The preparatory course is divided into the first and second departments and extends over one year, while the principal course is for three years. The first department of the preparatory course is for graduates of middle schools and the second for graduates of commercial schools.

The program of the principal course

SUBJECTS	FIRST YEAR	SECOND YEAR	THIRD YEAR
	<i>Hours per Week</i>	<i>Hours per Week</i>	<i>Hours per Week</i>
Commercial morality	1	—	—
Commercial correspondence	1	1	—
Commercial arithmetic	2	2	—
Commercial geography	2	2	—
Commercial history	—	—	3
Commercial products	2	2	—
Political economy	4	3	3
Finance			
Statistics			
Law of bankruptcy	4	3	5
Civil law			
International law			
Theory and practice of commerce . .	5	4	8
Bookkeeping and accountancy . . .	3	2	—
English	6	6	6
Chinese, French, German, Russian, or Spanish (elective)	—	5	5
Gymnastics	2	2	2
Total	32	32	32

C. THE NORM OF PUBLIC EDUCATION

CHAPTER XVII. GENERAL VIEW

CHAPTER XVIII. THE UNITED STATES

CHAPTER XIX. OTHER COUNTRIES

CHAPTER XVII

GENERAL VIEW

"Every man's life is a comedy, a tragedy, or a symphony, according as he is educated. It was a great thing when the common man first lifted up his head, looked about him, and said, 'I, too, will be educated.'" — DAVENPORT, "Education for Efficiency," p. 36.

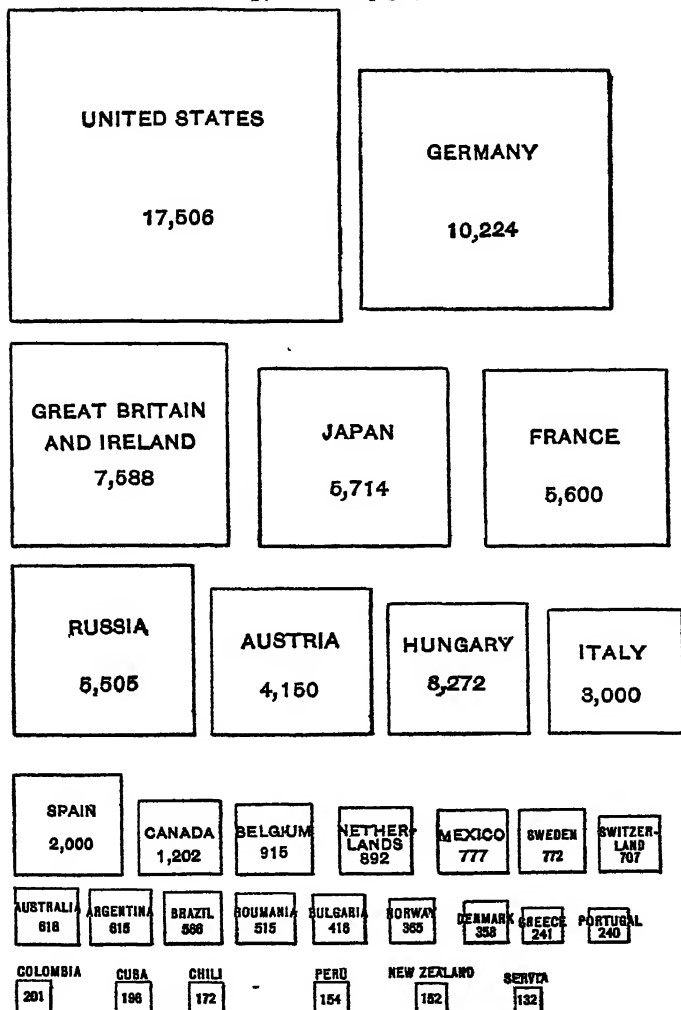
THE degree to which any State interests itself in education can, at the present day, be stated only in most general terms. Especially difficult is it to make justly any comparative statements as between countries. To begin with, all school statistics must have an allowance made for the factor of "personal equation," or we might better say of "racial equation." We would not hesitate, for instance, to repose greater confidence in the reports made by the Swiss government than those made by the Spanish government. I would venture to state that the average American school official would accept as "close enough," figures which the German would more laboriously endeavor to make strictly accurate. Hence we must hesitate to make sweeping generalizations in detailed characterization of various school systems.

We may, in a general way, allowing for this racial equation, recognize the reports of the educational departments of the several nations as fairly accurate; but when we collate them for comparative review, we must discount the results. For one thing, definitions are not the same in all countries: "enrollment" may mean one thing in one country and something a shade different in another; "elementary schools" may comprise certain grades in one country and other grades in another; "annual expenditure" may, in one country, include items not so recognized in another. Another source of inaccuracy for purposes of comparison is the fact that the various governments do not collect statistics and make reports at the same time; there may be as much as five years' discrepancy between the reports available at any given time.

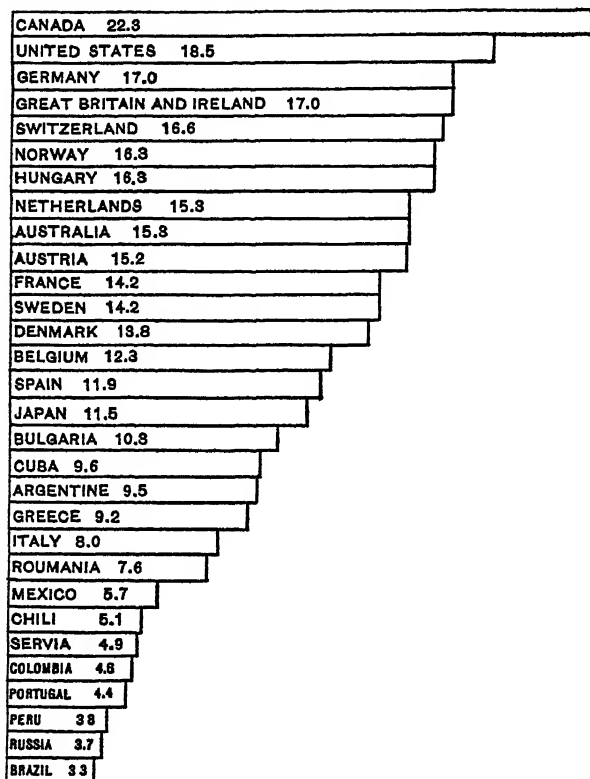
However, making allowances for all this, it is of interest to have brought before us the approximate facts as to the number of children who are receiving schooling in the leading countries of the world. This may most forcibly be shown by graphic representation.¹

¹The data for this and following graphs on elementary education are gathered from Report of Commissioner of Education, 1910, p. 1336 *et seq.*

TOTAL ENROLLMENT IN ELEMENTARY SCHOOLS
 [(Unit — 1000 pupils)]



THE PER CENT OF POPULATION THUS ENROLLED IS AS FOLLOWS:—



The foregoing statistics show, in most general terms, the comparative "interest" taken in popular education. But to arrive at a more accurate norm we naturally transpose interest into terms of support, and support into terms of financial expenditure. It might be argued that that country

which most heavily taxes itself for the support of its schools is the one entitled to first place in the list of countries arranged according to devotion to education. Even if figures to any degree accurate were obtainable, this conclusion would be unwarranted for several reasons. First, the monetary unit is not translatable in terms of purchasing power. It is well enough to say that one dollar is equivalent to four marks, but to say that an American high school teacher paid \$1500 a year is twice as valuable to his system as a secondary teacher in Germany paid 3000 marks is to his, would be absurd. And yet the American budget would show a double expenditure on this account as compared with the German statistics. Again, to know that the annual cost of educating each elementary school pupil costs New South Wales \$18.21 and Belgium \$8.95 is far from proving either that the people of New South Wales are twice as much interested in education as are the people of Belgium or that the Australian pupil receives twice as good schooling as does the Belgian pupil.

Moreover, the quality of the investment is a variable that cannot be computed. Even of two

neighboring cities in the same State, one may spend its school money wisely and the other squander an equal amount through wasteful methods of administration. "Qualitatively, through the roughly and ill-constructed subjective standards of public opinion, it has been assumed that every investment of public funds in public education yielded an immeasurable dividend in the form of an enlightened, moral, and efficient citizenship. . . . Quantitatively, these dividends are almost impossible of measurement."¹

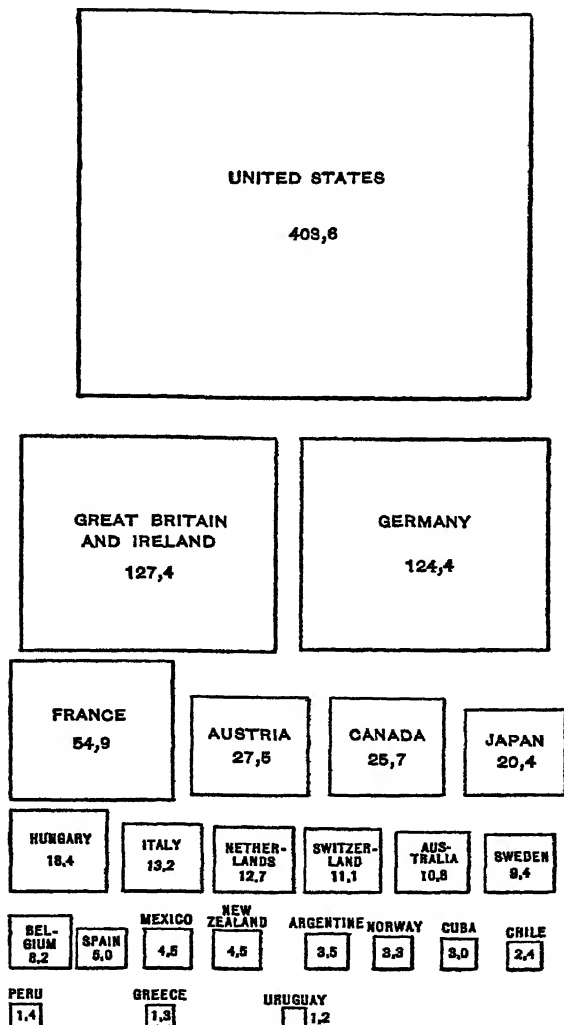
These limitations, then, must be kept prominently in mind as we consider the following financial tables :—

¹ Edward C. Elliott, "Some Fiscal Aspects of Public Education in American Cities," New York, 1905, p. 3.

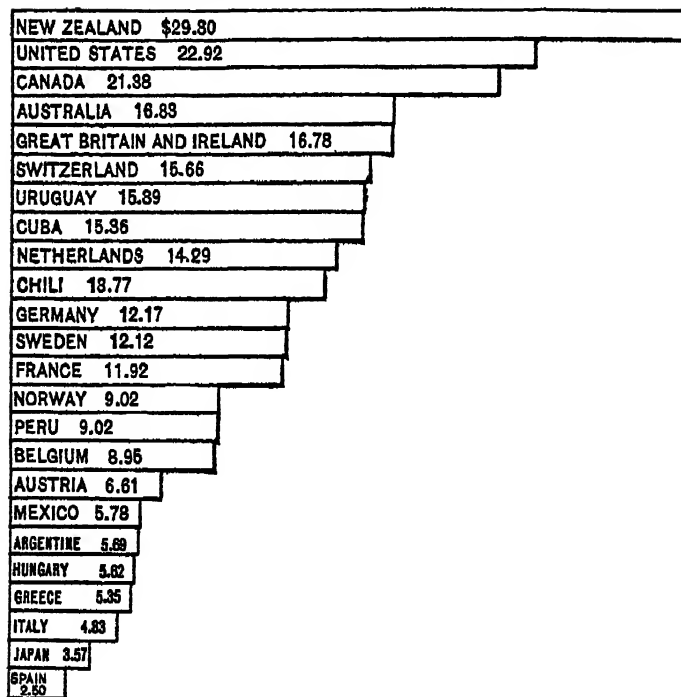
GENERAL VIEW

309

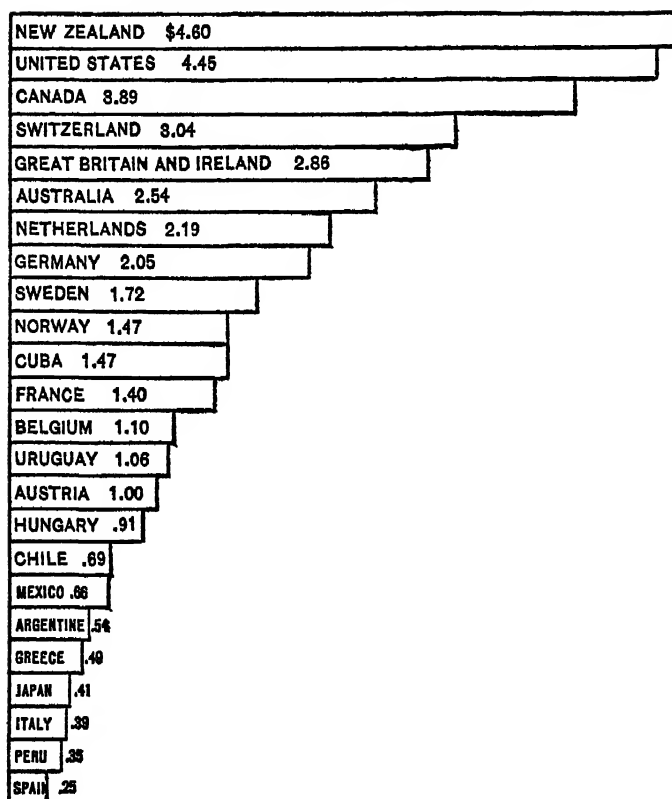
AMOUNT SPENT ON ELEMENTARY EDUCATION, ANNUALLY
(Unit = \$ 100,000)



EXPENDITURE PER CAPITA OF ENROLLMENT



EXPENDITURE PER CAPITA OF POPULATION



CHAPTER XVIII

THE UNITED STATES

"Our school system has not yet transcended the tadpole stage, and the next twenty-five years ought to—and I am optimist enough to believe they will—show vastly accelerated progress, so that the transformations of the past quarter of a century will appear small beside those of the next quarter, and the *per capita* sum spent upon each child will be greatly augmented." — HALL, "Educational Problems," Vol. I, p. vi.

PUBLIC education, as we have noted, is to be measured in two general directions — that of opportunity and that of compulsion.

Definite recognition of both of these phases is to be traced in the records of Massachusetts Colony. Witness the School Ordinance of 1677. "It is therefore ordered, That every township in this jurisdiction, after the Lord hath increased them to the number of fifty householders, shall then forthwith appoint one within their town to teach all such children as shall resort to him to write and read, whose wages shall be paid either by the parents or masters of such children, or by the inhabitants in general."¹

And again, "There was, after 1646, a considerable amount of compulsory primary education in Virginia, much more than is generally supposed, since the records of it have been buried in the parish vestry books."²

¹ Dexter, *op. cit.*, p. 585.

² John Fiske, "Old Virginia and her Neighbors," Houghton, Mifflin, 1902, Vol. II, p. 287.

In the United States every State throws open the door of educational opportunity to every child within its borders. Free tuition is given in the common schools of every State,¹ but there is a variation in the ages between which schooling may legally be demanded, shown by the following table:—

Legal School Age

Not limited : New Hampshire, Massachusetts, Rhode Island

4-16 : Connecticut

4-20 : Wisconsin, Oregon, New Jersey

5-18 : Vermont

5-20 : Michigan

5-21 : Maine, New York, Mississippi, Iowa, Nebraska, Kansas,
New Mexico, Idaho

6-17 : District of Columbia

6-21 : Pennsylvania, Delaware, Maryland, West Virginia, North
Carolina, South Carolina, Florida, Tennessee, Arkansas,
Oklahoma, Ohio, Indiana, Illinois, Minnesota,
South Dakota, Montana, Wyoming, Colorado, Arizona,
Washington, California

6-20 : Kentucky, Missouri, North Dakota

6-18 : Louisiana, Utah, Nevada, Georgia

7-20 : Virginia

7-21 : Alabama

7-17 : Texas

¹ Among the early colonies, the opportunities for elementary schooling were on the whole meager; the schools were nearly all private enterprises and were usually supported by tuition fees. The New York Free School Society organized, in 1805, on the proposi-

In the high schools of more than half the States, tuition is free. In some States only non-residents pay a fee.¹

Higher education is absolutely free in but few institutions, but in many others systems of scholarships make it so to deserving students. But it is not to be forgotten that the fee demanded from the student by no means covers the cost of the tuition he receives. In 1910, the total income of about five hundred universities, colleges, and technological schools, public and private, exceeded \$80,000,000, of which the students contributed in fees less than \$15,000,000. Thus we may say that the American college student receives four fifths of his education free.

It is not alone in remitting tuition fees that the State furthers education. "Thirty States and the District of Columbia have enacted laws providing, in one way or another, for free textbooks."² Of these, nine limit the prescription to the elementary

tion that when schools are maintained by fees, it is "impracticable and unjust to impose any compulsory attendance upon the very poor." It was not until 1848 that a whole State, Wisconsin, abolished tuition fees.

¹ See Hollister, *op. cit.*, p. 356 *et seq.*, for table showing, by States, principal legal enactments affecting high schools.

² Hollister, *op. cit.*, p. 80.

schools, ten make it mandatory upon communities and eleven make it permissive. "New York State enacted a law authorizing direct taxes for 'school libraries' in 1834, and followed up this act, in 1838, with provisions for annual State appropriations to such libraries, which continue even to the present day. Twenty-one other States have since followed the example of the Empire State and placed like tax laws on their statute books."¹ Many municipal systems are giving formal attention to the medical inspection of pupils.² The health of pupils is further enhanced by the establishment of playgrounds; and in a few cities experiments are being made in providing pupils with noon-day meals at or a little above cost. Thus in many directions is society making use of the school organization in order to effect its own advancement and the betterment of the race.³

¹ Foght, *op. cit.*, p. 257.

² See L. H. Gulick-L. P. Ayres, "Medical Inspection of Schools," New York, 1908. Also, A. H. Hogarth, "Medical Inspection of Schools," London, 1909, and T. N. Kelynack, "Medical Examination of Schools and Scholars," London, 1910. For data collected by the Bureau of Municipal Research, New York, concerning legislation and practice throughout the country, see Report of Commissioner of Education, 1910, p. 142.

³ See Dutton-Snedden, *op. cit.*, Chap. XXXI, on the widening sphere of public education.

As to compulsory education, in only eleven States is there no legal provision therefor. In the following table are given the ages between which pupils must be in school attendance. In many cases, the term may be extended or shortened under certain circumstances. For example, the New York law fixes the period at from seven to sixteen years of age; but a pupil who has reached the age of fourteen, has attained a certain proficiency in the elementary studies, and has completed 130 days of attendance during the year preceding his application, may leave school for employment.

5-14: New Jersey

6-14: Maryland (certain counties only)

7-14: Massachusetts, Rhode Island, Delaware, Kentucky, Indiana, Wisconsin, Iowa, Wyoming, New Mexico

6-16: Pennsylvania

7-15: Maine, Nebraska

7-16: Connecticut, New York, Illinois, Michigan

8-14: New Hampshire, District of Columbia, West Virginia, Missouri, North Dakota, South Dakota, Montana, Colorado, Arizona, Nevada, California

8-15: Vermont, Kansas, Washington

8-16: Oklahoma, Ohio, Utah, Idaho

8-18: Minnesota

9-14: Oregon

None : Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas.

Penalties upon parents for neglect are fixed by all States having compulsory education laws. These penalties are usually fines, ranging from \$3 to \$50; the Nevada law is most rigorous — first offense, \$50 to \$100; subsequent, \$100 to \$200 with costs. Imprisonment for short terms is added in a few States. New Jersey makes one guilty of neglect “punishable as a disorderly person.”

And now, what is this interest in education costing the people of America? “There has never been a time in the world when there has been spent upon the young a tithe of the thought and treasure which the American people have freely poured out during the past forty years.”¹ A generation ago an English observer reported that “If there is one question upon which the citizens of the United States are practically unanimous, it is in support of free schools. The gauge of public interest in the system is the burden of taxation which the people are willing to

¹ Birdseye, “Individual Training,” p. iii.

bear for its maintenance.”¹ And to-day the fact is that “roughly, nine tenths of elementary education and the education of teachers, over two thirds of secondary education, and over a third of college and higher technical education are provided and controlled by the public.”²

Dr. Jackson has given us an historical sketch of “The Development of Support in Colonial Massachusetts,”³ the aim of his study being “first, to trace the various methods through which the early schools of Massachusetts were supported — showing at the same time the basis of experience for dealing with the problem of support through the close relationship existing between (1) education and religion, and (2) education and the support and apprenticeship of the poor; and, second, after partial support by partial taxation had become customary, to point out the main causes which made general taxation the *sole* method of school support and hence gave rise to the ‘free school’ — publicly controlled and publicly supported.”

The amount expended upon the common schools of the nation now exceeds \$400,000,000

¹ Francis Adams, “The Free School System of the United States,” London, 1875, p. 80. Also, “As to the propriety of retaining the free character of the schools I can find but one opinion — at any rate, so far as the elementary schools are concerned. A small minority are opposed to free high schools.”

² Thorndike, in Report of Commissioner of Education, 1907, p. 525.

³ George L. Jackson, New York, 1909, p. 5.

annually, which is at the rate of \$4.45 per capita of population and of \$31.65 per capita of pupils enrolled.

These amounts have been steadily rising in the last forty years, as may be seen by the following table : —

YEAR	TOTAL	PER CAPITA OF POPULATION	PER CAPITA OF ENROLLMENT
1870-71	\$ 69,107,612	\$1.75	\$15.20
1880-81	83,642,964	1.63	13.61
1890-91	147,494,809	2.31	17.54
1900-01	227,522,827	2.94	21.23
1907-08	371,344,410	4.27	30.55
1908-09	401,397,747	4.45	31.65

This is far from evenly distributed throughout the nation.

DIVISION OF STATES	PER CAPITA OF POPULATION		PER CAPITA OF ENROLLMENT	
	1870-71	1908-09	1870-71	1908-09
North Atlantic	\$2.38	\$5.55	\$18.31	\$42.03
South Atlantic	0.63	2.19	10.27	15.57
South Central	0.73	2.00	9.06	13.94
North Central	2.14	5.39	14.87	35.52
Western	2.15	6.59	21.87	49.91
The United States	1.75	4.45	15.20	31.65

Reducing these figures to percentage of variation from the mean for the United States, we have : —

	AS TO POPULATION		AS TO ENROLLMENT	
	1870-71	1908-09	1870-71	1890-09
North Atlantic	+ 36	+ 24	+ 20	+ 33
South Atlantic	- 64	- 51	- 32	- 51
South Central	- 58	- 55	- 68	- 56
North Central	+ 22	+ 21	- 2	+ 12
Western	+ 23	+ 48	+ 44	+ 58

This would indicate that, compared with the United States as a whole, the Western States are spending upon their schools proportionately much more than they were forty years ago, and the North Atlantic group considerably less.

This \$400,000,000 was received, as follows:—

Income of permanent school funds and rent of school lands		\$13,446,826
From State tax or appropriation		63,547,354
From local tax or appropriation		288,642,500
From other sources, State and local		38,010,609
Total		\$403,647,289

This shows that 71.5 per cent—nearly three fourths—of the money expended upon the common schools is derived from local taxation, the States providing 15.7 per cent.

The expenditure of this money was distributed thus:—

For sites, buildings, furniture, libraries, and apparatus		\$81,878,591
For teachers' and superintendents' salaries		237,013,913
For all other purposes, principally maintenance		82,505,243
Total		\$401,397,747

Thus 59 per cent, practically three fifths, of the school moneys goes into salaries, one fifth into sites, buildings, etc., and one fifth into maintenance and other expenses.

It may be estimated that the expenditures for all public purposes of the United States government, of the various States, and of the minor civil divisions total over \$1,600,000,000; thus the nation spends about one fourth of its income upon its schools.

Dr. Elliott calculated the following percentages as representing, for 1901, the amounts devoted to schools in relation to the entire amounts of municipal expenditures :¹ —

New York	19.17	New Orleans	11.12
Chicago	36.85	Detroit	21.44
Philadelphia	17.37	Milwaukee	20.49
St. Louis	17.51	Washington	19.84
Boston	13.07	Newark	21.79
Baltimore	18.61	Jersey City	13.90
Cleveland	26.17	Louisville	18.48
Buffalo	19.81	Minneapolis	25.03
San Francisco	19.80	Johnstown, Pa.	46.80
Cincinnati	18.12	Norfolk, Va.	6.96
Pittsburg	15.60		

¹ *Op. cit.*, p. 22. Also, at p. 55: "A municipality is seldom economical in the expenditure of its revenues. It is far more often either parsimonious or extravagant. The recognition of the principle of expediency is much more frequent than that of real worth or official utility."

Dr. Foght puts in a plea¹ for a less disproportionate expenditure for rural schools. "Right now we are spending \$33.01 on the city child's education for every \$13.17 on the rural child's. This is for school maintenance alone and has nothing to do with permanent school investment. In this field the cities, with their much smaller total valuation, invest vastly larger sums of money in school buildings and equipment than rural communities. This is not giving the farm boys and girls a fair chance."

As to secondary education, the government is fast assuming responsibility for its provision. In 1890, 39 per cent of the high schools, with 44 per cent of the teachers and 32 per cent of the pupils, were under private auspices. Twenty years later, the figures have fallen to 15 per cent of the schools, 21 per cent of the teachers, and 11 per cent of the pupils.

The high school "is recognized everywhere as a necessary and legitimate part of our common school system. . . . But while we probably have all the elements represented, in the country at large, for the successful administration of secondary education, yet there are very few cases, if any, where individual States have brought them all together into a consistent scheme of laws."² Five States have made no specific provision in their State laws for high schools, at least four make their establishment mandatory, and the others have enacted specifically permissive legislation of various kinds.

¹ *Op. cit.*, p. 18.

² Hollister, *op. cit.*, p. 46.

Municipalities are quite consistently hearty in their support of high schools, but to secure their establishment in rural communities is a serious problem for State governments. Two general plans by which the State may give financial aid to secondary education are practiced—the paying of State subsidies to the schools and directly or indirectly paying tuitions.

Dr. Snyder, in his study of “The Legal Status of Rural High Schools in the United States,”¹ groups the States as follows :—

Those giving direct aid to high schools : Maine, Wisconsin, Minnesota, Florida, Massachusetts, North Dakota, Pennsylvania.

Those using other than the direct subsidy plan : California, New York, Rhode Island, Washington.

Those directly or indirectly paying the tuition of certain high school pupils : New Hampshire, Connecticut, Delaware, Vermont.

Those legalizing the local payment of high school tuition : Indiana, Ohio, Kansas, Nebraska, Michigan, Idaho, Oregon, Utah.

Those making no legal provision for the tuition of nonresident high school pupils : Illinois, Iowa, New Jersey, Colorado, South Dakota, Wyoming, Arizona, Missouri, Montana, Nevada, New Mexico.

¹ Edwin R. Snyder, New York, 1909, the thesis of which is “State aid to rural high schools is a public need and duty.”

One of the most universal methods of giving aid to education of all grades is that provided by the constitutions of the several States exempting from taxation, public school houses and apparatus, academies, colleges, and universities.

The State has been increasingly mindful of its obligation to render financial aid to higher education. The 494 universities, colleges, and technological schools reporting to the Bureau of Education, derived their income for 1910, as follows:—

From tuition and other educational fees	\$14,687,192
From room rent.	1,221,131
From board and other noneducational fees	3,311,974
From productive funds	11,592,113
From State or city	
For increase of plant	5,494,539
For current expenses	14,226,360
From the United States government	4,607,298
From private benefactions	
For increase of plant	6,143,435
For endowment	9,771,122
For current expenses	2,822,588
From all other sources and unclassified	6,561,235
Total	\$80,438,987

Thus of the \$80,000,000 received, over \$24,000,000 was furnished by government—national, State, and municipal.

"The earlier American colleges were, in the beginning, in a large sense the children of the State. Yale, Harvard, Princeton, Columbia, were all chartered by and in some measure supported by their States at the start, and are yet subject to the law, though they have become independent of such support."¹

The declaration by the General Court of Massachusetts, in 1652, read: "If it should be granted that learning, namely, skill in the tongues and liberal arts, is not absolutely necessary for the being of a Commonwealth and churches, yet we conceive that, in the judgment of the godly wise, it is beyond all question not only laudable, but necessary, for the well-being of the same; and although New England (blessed be God) is completely furnished (for this present age) with men in place . . . seeing the first founders do wear away apace, and that it grows more and more difficult to fill places of most eminence as they are empty or wanting, . . ." Following this cautious estimate as to the immortality of the early wise men, the document provides for aid to Harvard College. Also, the College of William and Mary was so aided by the Virginia government that it had "at its start, more wealth than Harvard had seen during decades of struggle for existence."

The national government has been liberal in its aid to higher education. At least two townships of land have been given to each State admitted to the Union since 1800 (excepting Maine, Texas, and West Virginia), for the purpose of founding a university. In 1857, Justin S. Morrill, of Vermont, first introduced into Congress his measure

¹ Draper, *op. cit.*, p. 35.

for the "endowment of agricultural and mechanical colleges in the several States by the national government." This act was signed January 2, 1862,¹ and provided for aid to the States through liberal grants of lands — 30,000 acres for each member of Congress.²

There was "a sentiment abroad at that time in the country that the applications of science, especially those of chemistry so brilliantly and lately made by Liebig, would prove of the utmost economic value, so that hope and expectation were perhaps somewhat excessive. Great railroad grants were being made by the government and wide tracts were homesteaded or thrown open. Unfortunately, many of the States sold their educational land, and the colleges they established were for the most part poor and mean. Some States, however, notably Michigan and New York, kept their land and profited greatly by their foresight. Over 1,000,000 acres of this land are still unsold, and the sales altogether realized about \$12,000,000."³

¹ "War summons a people to the discrimination of the values which help and constitute human character and national life. It moves the will as well as quickens passions. It represents concert of action. It stirs up latent energy; it usually serves to assure a nation of its having resources and capacities of which it had never dreamed. In such a revival of mind and heart, all the people are easily attracted towards the institutions and methods of education." — Thwing, "Education in the United States," p. 6.

² The total grant under this act was 10,578,529 acres, of which there remained unsold, 1910, 1,026,847: Oklahoma, 250,000; South Dakota, 155,612; Montana, 122,919; Wyoming, 90,000; Idaho, 81,560; Washington, 80,260, etc. ³ Hall, *op. cit.*, p. 668.

Other acts have followed, and it is estimated that for the year 1911, each State and territory will receive \$80,000 from the United States government for agricultural colleges and experiment stations. Every State has its agricultural college or department, thus supported, at least in part, and in the Southern States there are sixteen additional schools for colored students.

This chapter may well be concluded by giving emphasis to the thought that there is after all no sharp distinction that may be drawn between the public and the private institutions of higher learning. "To divide the institutions of the country into two groups on the ground of State support or of support personal would be a grave misfortune. Both classes of institutions belong to the public. No college can be called private."¹ The amount of money bestowed upon the colleges and universities by private benefactions is tremendous; but it is society that makes possible the accumulation of the private wealth, and the return of part of it to education is but its return to society which first gave it.

America may well look upon the privately en-

¹ Person, *op. cit.*, p. 273.

dowed universities with the same hopeful assurance that it does upon those governmentally supported. From both groups it may expect the same devotion to democratic ideals, and to both will it render and in turn receive the same lofty allegiance. "Itself seeking the highest ideals, untouched by selfishness, the university is able to move democratic communities unto the highest and the best. The university should constantly keep before the democratic community the duty of a love for truth, of a love for moral excellence, and an appreciation of the beautiful."¹

¹ Thwing, "History of Education in America," p. 453.

CHAPTER XIX

OTHER COUNTRIES

Germany is "that nation which, first of all civilized nations, established a system of schools for the entire people down to the lowest strata of society." — HUGHES-KLEMM, "Progress of Education in the Century," p. 147.

"Compulsory education usually makes itself unnecessary after a few decades. . . . Ignorance tends to perpetuate itself, and so does education." — SHARPLESS, "English Education," p. 42.

WE have already noted the degree to which the nations of the world tax themselves in favor of public education. We may now consider, for each of the leading foreign nations, the share which the central government takes upon itself and the degree to which it imposes upon minor political divisions the duty of supporting their schools.

Germany

In Germany, the government requires that sufficient provision be made for public elementary schools to accommodate all those desiring to avail themselves of them. At the same time it

does not interfere with private schools further than to satisfy itself that they meet a certain standard of excellence. Nearly one third of the \$125,000,000 annually spent upon public elementary education throughout the empire is furnished by the State governments, the balance coming from the several communities. The continuation schools—industrial, commercial, and agricultural—are subsidized by nearly all the States.

As to secondary education, there is no obligation put upon either royal or municipal authorities to provide it for all who may desire it. "There is no redress for those who are excluded. Applications for admission to some of the larger city schools must be made long in advance. The less fortunate—sometimes because less influential—must put up with what can be had."¹ The secondary schools are not self-supporting, the large deficit being met by the State government or by the municipality or from private funds, according to the legal character of the school.²

¹ Russell, *op. cit.*, p. 171.

² There are three kinds of schools: (1) State schools, ruled entirely by the State; (2) Municipal schools, built and staffed at the expense of the town; and, (3) schools that receive financial assistance from the State.

Thus, in Prussia, for 1902, the total expenditure of approximately \$12,500,000, \$10,500,000 of which was for salaries, was met as follows: —

By State funds	. . . . .	\$3,100,000
By local means	. . . . .	3,700,000
By endowments, etc.	. . . . .	360,000
By private means	. . . . .	5,340,000

None of the universities is private or municipal; all are State institutions and the largest part of the expense is covered by direct State subsidies. Higher vocational education is supported indirectly: for instance, commercial schools are so recognized and supervised that their graduates are granted exemptions from a portion of the required military service. Government support of schools for girls has not been very hearty, though of the Higher Girls' Schools about one third are public.

Germany has made various essays into extra-instructional activities in the schools. Two specific cases, out of many, may be cited. The city of Strassburg is the pioneer in taking care of children's teeth during school age. In six years 27,801 children were treated by the school dentists of that city at a cost of over \$6000. In twelve of the eighteen cities of Bavaria regular meals are

provided school children. For example: "In Ludwigshafen indigent children are given, before school opens, a quarter liter of warm milk (not skimmed) and two rolls. During the winter of 1906-1907 as many as 1230 children, or about 10 per cent of all the children attending the lower schools, received breakfast, which cost the city \$1420."¹

France

In France, the law of 1833 made it obligatory upon communes to provide primary schools either public or subsidized private. Infant schools are not obligatory, but in communes of 2000 or more population they are entitled to local and State subventions. The local school tax is paid into the State treasury, and all obligatory expenses of the primary schools, except for sites and buildings, are borne by State appropriations. Nearly 70 per cent of the money expended on elementary schools was contributed by the State and the balance by the communes.

The steady increase is noteworthy; the amount expended by the State on primary education:—

¹ Commissioner's Report, 1909, p. 475. Also, 1910, p. 467, showing summary for 201 German cities.

1870	9,988,300 fr.
1880	26,677,813
1890	129,388,610
1901-02	236,598,969
1906-07	283,337,098

England

In England, the national government gives financial aid to the schools. The grants for 1909-1910 were estimated as follows:—

England	\$ 66,415,022
Scotland	10,449,934
Ireland	<u>7,892,267</u>
	84,757,223

Eighty-five per cent of the amount for England and ninety-four per cent of that for Scotland went into elementary education. About one half of the total amount spent upon the schools is provided by parliamentary grants. The balance is made up by local taxation "rates." Thus, though the national grants are practically the same for each pupil, the average per capita cost varies in consequence of the variation in the local rates. It reaches such extremes as £6 18s. in Hornsey to £2 4s. in Whitehaven, with such intermediate figures as Liverpool £4 13s. 1d.;

Manchester £4 13s. 10d.; Sheffield £3 15s. 6d.; Bradford £5 10s. 2d.

In 1908, in Scotland, the cost of maintenance per pupil in average attendance was in Public Schools £3 11s. 1d.; Voluntary Schools £2 15s. 2d.

In 1907, in Ireland, the State grant for primary education amounted to \$6,277,837, and the amount raised from local sources \$547,950.

Other Countries

Austria.— Only a few elementary schools supported by the State; secondary schools by State, by provinces, and by the larger communities.

Belgium.— Each commune must provide at least one primary school, the cost being sustained by the locality with subsidies from the State and provinces.

Denmark.— The State makes grants to private schools.

Italy.— The State provides about half; the communes and provinces the balance.

Netherlands.— Private institutions are supported by the State, and public schools by the State and the communities.

Norway and Sweden.— The State pays 25 per cent of the cost of elementary schools.

Spain. — The elementary schools supported chiefly by municipalities. At least one secondary school must be provided in every province.

Switzerland. — The expenditures are borne about equally by the State and the communes.

Canada and Australian States. — Support is by combined government grants and local tax.

Argentina. — The constitution places upon the provinces the obligation of maintaining a system of primary instruction. The federal subsidies in 1908 amounted to about \$1,000,000.

Bolivia, Ecuador, Mexico. — Support divided between federal and local governments.

Brazil. — Elementary instruction provided by State governments; secondary education by the Republic.

Chili. — No local taxes are levied for local purposes, the national government controlling and supporting the public schools and subsidizing most of the private schools.

Educational Opportunity

As to the opportunity phase, we may say, in general, that nearly all nations provide elementary schooling free of tuition, and that secondary and

higher education are universally subject to tuition fees.

In Germany, elementary schools have been free in Prussia since 1868;¹ in the other states a small fee is ordinarily collected but may be avoided by showing poverty. The annual tuition fees in secondary schools vary from \$7 or \$8 to as high as \$48; the former in Bavaria, the latter in the higher grades in Hamburg. In fact, a third of the total expenditures for secondary schools is raised from tuition fees. Fees are charged in the universities, but "impecunious students are allowed to postpone payment of fees for a number of years in some universities; in others, payment is remitted entirely, or to the extent of one half."²

In France, primary education has been free since 1881. In the secondary schools the fees range up to \$30 in the *colleges* and \$50 in the *lycées*. There are, however, a number of scholarships available, which remit the fees.

In England, elementary education has been free since 1891; in Scotland since 1893, and in

¹ The *Mittelschulen* charge a fee of from \$10 to \$25, and are patronized by the lower middle classes.

² Lexis, *op. cit.*, p. 6.

Ireland since 1892. Secondary schools charge tuition varying from \$15 in some districts to \$150 at Harrow, but one condition of the government grants to these schools is that 25 per cent of the places shall be open to non-paying pupils.

With but few exceptions elementary schooling is free in all of the other countries we have been considering. It is not so in Netherlands; in Italy, it is so in the lower grades only; and in Japan, from six to ten years of age it is free, and from ten to fourteen a small fee is exacted.

Compulsory Education

In compulsory education Germany is the pioneer, Weimar having enacted the first law in 1619, followed by Gotha 1642, Brunswick 1647, Würtemberg 1649, and Prussia 1717. In 1900 it could be said that virtually no child of school age was withheld from school. Negligent parents are liable to punishment by fine or imprisonment.¹ Even attendance upon continu-

¹ "The necessity of having children in school has been inbred in the life and thought of the German people. All their plans are made to conform to it. . . . It is thought as necessary to have children go to school regularly as to have them eat regularly." — Draper, *op. cit.*, p. 63.

ation schools—in Prussia until the age of eighteen—is compulsory, and the employer is liable to fine for the nonattendance of his employee.

In France, primary education has been compulsory since 1882, covering the ages between six and thirteen. Penalties for noncompliance range from a fine of from eleven to fifteen francs to imprisonment of four or five days.

In England, the law of 1870 provided that “the parent or guardian of every child between five and fourteen years of age must cause such child to attend a certified efficient school every time the school is open, unless the child is receiving efficient instruction in some other manner, or being twelve years of age, or more, is exempt from attendance at school under certain conditions.” The penalties for noncompliance range from 5s. to £5. In Scotland, since 1880, parents have been required to provide efficient education for their children between the ages of five and fourteen. School boards may compel attendance in continuation classes up to the age of seventeen.

The ages for compulsory attendance in other countries are, in general statements, as follows:—

Austria : From end of sixth to end of fourteenth year.

Denmark : 7-14.

Greece : nominally 5-12.

Hungary : 6-14.

Italy : 6-9, and 9-12 where available.

Netherlands : 6-13.

Norway : $6\frac{1}{2}$ -14.

Portugal : nominally elementary.

Spain : nominal.

Sweden : 7-14.

Switzerland : varies in different cantons.

Canada : up to 14.

Australia : usually 6-14.

Argentina : 6-14 to 8-12 in various provinces.

Bolivia : nominally elementary.

Brazil : not compulsory.

Chili : not compulsory.

Ecuador : boys, 6-14; girls, 6-12.

Mexico : elementary.

Uruguay : elementary.

Venezuela : 7 to completion of elementary.

Japan : 6-14.

PART II. SCHOOL DIRECTION

CHAPTER XX. THE UNITED STATES

CHAPTER XXI. OTHER COUNTRIES

CHAPTER XX

THE UNITED STATES

"The schools, in general, have occupied an intermediate position between Church and State, responding always to influence from both sides, but affected chiefly in earlier times by ecclesiastical considerations and in later times chiefly by considerations of a political character ; and at all times they have been open to influences of a more diffusive sort, economic, literary, and, broadly speaking, social." — BROWN, "The Making of Our Middle Schools," p. 1.

"The administration of American education is commonly democratic and local, by which is meant that ultimate control lies in the hands of representatives of the people, and the units of administration are small rather than State-wide." — SNEDDEN, "Vocational Training," p. 57.

"America to-day needs a new educational dispensation. Our system is not fulfilling the purpose for which our fathers established it, nor is it molding men as it did in older days when it was simpler and cheaper." — HALL, "Educational Problems," p. vi.

THE direction of public education in the United States is distinctly a function of the governments of the several States. No mention of education or schools is made in either the Declaration of Independence or in the federal Constitution.

"The very definite and common understanding at the time of making 'the more perfect union' must have been that the federal government had distinct responsibility about schools and morals in federal territory beyond the limits of organized States, but that this function was reserved to the States wherever there were or whenever there should be organized States."¹ On the other hand, every State Constitution makes some provision for the establishment and maintenance of a public school system. The State legislatures have, in obedience to the mandates of their respective constitutions, enacted laws which vest responsibility for the direction of their school boards. These boards are thus, whatever may be the method of selection of their members in any case, the direct and responsible agents of the State government. Various minor political divisions are used as units of administration.

With this preface we may now study a little more particularly the relation to public education of the various political divisions. While it is true that the federal government has no direct control or supervision over the public schools of the

¹ Draper, *op. cit.*, p. 108.

nation, it is not without its influence upon them. We have already made note of the fact that the national government has made specific grants of public lands to the States for higher education. Beyond this, since 1785 about 80,000,000 acres, valued in the neighborhood of \$100,000,000, have been given to the States for the common schools. The government directly administers the schools of the District of Columbia, Indian Territory, Alaska, Porto Rico, and the Philippine Islands. It also conducts its Military Academy, at West Point, and its Naval Academy, at Annapolis. Its interest in educational matters is further evidenced by its support of the Congressional Library, at Washington, and its aid to the Smithsonian Institution and educational institutions of collegiate rank in the District of Columbia. More than this, the government keeps in touch with the schools of the States through its Bureau of Education. This was organized, as a department, March 2, 1867, but made a bureau of the Department of the Interior, July 1, 1869. The bureau collects, collates, and publishes statistics relating to the schools of all grades, public and private, throughout the nation; makes investigation and

reports on matters of special interest; and administers the schools of Alaska.

Among the States, New York was the first to establish a State Board, when, in 1784, it provided for a Board of Regents. This board, recently reconstituted, is a continuous body, composed of eleven members, elected by the legislature for terms of eleven years. The New Jersey Board is appointed by the governor from Congressional districts. The Massachusetts Board, since July 1, 1909, is composed of four educators appointed by the governor. Washington has two boards: the State Board of Education, composed of four educators appointed by the governor; and the Board of Higher Education, consisting of the State Board and representatives of the State University, colleges, and normal schools. The duties and powers of the State Boards are as diverse as their form of organization. They exercise various functions, such as: the custody of State funds, the general oversight of education, the government of certain State institutions, the election of State superintendents, the selection of school books,¹

¹ In most States the textbooks to be used are prescribed by the local boards. In some, among them Georgia, Indiana, Louisiana,

the certification of teachers. Thus there is at present no uniformity in the details of the directive systems of the several States. But the trend is toward more uniform methods and in the direction of centralization. "There is a widespread effort towards a far-reaching revision of State school laws. This effort has in several States taken the form of the appointment of educational commissions upon which has devolved the preliminary study of the proposed revision and the recommendation to the legislature of needed changes in the public statutes."¹

The smallest political unit in the country is the school district, which arose because of the conditions of political life in early New England. It had the advantages of simplicity of political and educational machinery, and allowed the people to take effective and immediate action. The Massachusetts Act of 1647 had declared the town the basis of school organization, but the district plan received legal sanction in 1789. In time it proved unsatisfactory, its chief defects being: it was pro-

a uniform list is adopted for the entire State. In California, the government publishes its own books, and the use of these is compulsory.

¹ Report of Commissioner of Education, 1909, p. 12.

vincial and prevented growth of the educational spirit; it was expensive; it increased the number of school officers; it brought about injustice in taxation and in educational privilege; and it prevented the formation and growth of a consistent policy in education. In 1882, Massachusetts abolished the district unit, as have more than a score of other States. Eight States now have legal provision for township organization and nineteen others have permissive legislation on the subject. Outside of New England, and particularly in the South, the County has been the chief educational sub-unit. The County Boards are the chief authority in Maryland and Florida. In Virginia and Nevada, use is made of divisions still larger than the county. In California a majority of the members of the county boards must be certificated teachers.

The district system, however, is still in favor except in New England and the South, on account of its simplicity and its bringing of the schools into close and intimate relations with the people. The States do not all administer the district in the same way, but in general it may be said that the taxpayers of the district meet peri-

odically and elect a trustee, or board of trustees of three or five members. These trustees direct the schools within certain limitations. They usually employ teachers, but have no supervisory or professional authority over them. Their chief responsibility is for the proper expenditure of school moneys. It may be seen that this duty brings the trustees and, through their election by them and reports to them, the people of the district into very intimate knowledge of the affairs of the school or schools in which they are all most closely interested. The report of a Pennsylvania district given on the following page is typical and indicates the details of school finance as they come closest to the people.

In urban centers the school district usually becomes merged into the municipality, without, however, losing its corporate identity. It thus remains more or less independent of the city government, although there are a few exceptions—notably Baltimore, Chicago, Syracuse, San Francisco, New Haven—where the Board of Education is not a body corporate. The chief characteristics of the typical city school board are: it is composed of some dozen members,

Public School Financial Statement

01- *Lackawanna* District, *Pike* County, Pennsylvania,

FOR THE FISCAL YEAR ENDING JUNE 1st, 1910

Whole Number of Schools	14
Number of Teachers Employed	14
Number of Pupils Enrolled in all the Schools	266
Average Daily Attendance	179
Amount of Tax Levied for School Purposes	\$ 2102 22
Amount of Tax Levied for Building Purposes if any	\$ 988 36

Treasurer's Account--Money Received.

Received from State Appropriation June 190	2460 15
Balance on Hand from last year	270 14
From Collector, including Taxes of all kinds	3091 08
From Loans, if any	
From County Treasurer, unseated Lands, Fines, &c	256 15
From Sales of Houses or Lands, if any	
From Dog Tax	22 32
From all other sources	147 32
Total Receipts	\$ 6247 16

Treasurer's Account--Money Paid Out.

For Purchasing Grounds, if any	
For Building Houses, if any	
For Rent Repairs &c	746 19
For Teachers' Wages	4060 00
Amount Paid Teachers for attending Institute	140 00
For Text Books	196 26
Supplies other than Text Books	66 99
For Fuel and Contingencies	186 18
Fees of Collectors, \$	115 47
Salary of Secretary Expenses, Stationery, Postage, &c	83 00
For Printing and Auditors, Fees	12 00
For Debt and Interest Paid, if any	
For Enforcing Compulsory Law	
For	
For	
For all other Purposes and Sundry Expenses	282 92
Total Money Paid Out	\$ 5889 01

Resources and Liabilities.

Cash on hand, if any	358 15
Amount due District, if any	
Amount due Treasurer, if any	
Total Debt of District, if any	

We hereby certify that we have examined the above and find it correct.

August W. H. Keiser
W. H. D. C. C.

Auditors

Witness our hands this

7th

day of

June

1910

W. H. D. C. C.

President

Secretary

laymen, who serve without pay, on terms of two or three years; it meets once or twice a month; its duties are chiefly legislative; it transfers its executive functions to professional appointees. There are, of course, variations on each of these points. For instance, the size of the board varies considerably from four (San Francisco) or five (Boston, Indianapolis, Rochester) to twenty or more. (New Orleans, 20; Chicago, 21; Philadelphia, 21; Cincinnati, 27; Pittsburgh, 45; New York, 46.) The length of term ranges from two to seven years: three in Chicago, Philadelphia, Boston, Pittsburgh, Newark; four in Cleveland, Detroit, San Francisco, Cincinnati, New Orleans, Los Angeles; five in New York; six in St. Louis, Baltimore, Milwaukee, Minneapolis. In a very few cities the members receive remuneration. The method of selection, too, varies: members are appointed by the mayor, as in New York, Cincinnati, Jersey City; or by other authorities, as in Philadelphia, Washington, Richmond; or they are elected, by wards, as in Detroit, or at large, as in Rochester and Boston.¹

¹ See Harry E. Bard, "The City School District," New York, 1909, for statutory provisions regarding organization and fiscal

The tendency is toward centralization, vesting appointing power in the mayor and holding him responsible for results.

The administrative machinery above described in merest outline directs the schools for both elementary and secondary education. The State universities are usually directed by governing boards independent of the rest of the educational system. In Michigan, the eight regents of the university are elected, two at a time, every other year. In Wisconsin, the board is appointed by the governor, one member from each Congressional district and two at large; and in Minnesota by the governor subject to confirmation by the Senate. In Nebraska, the board is chosen at a general election; and in Illinois it is elected on the state ticket. "It may be said that usually their authority is supreme, yet this authority they seldom see fit to use arbitrarily. Their decision is ultimate, yet usually they trust the Faculty. In its last analysis the management of a college rests absolutely in the Board of Trustees. To

affairs, and for bibliography. Also, for discussion as to size of boards, personnel, etc., see Chancellor, "Our Schools," Chap. II, and Sogard, *op. cit.*, p. 6 *et seq.*

this Board the Faculty and students are responsible.”¹ According to Dr. Eliot, their attention should be “directed chiefly to convincing the people of the State, and particularly the members of the legislature, first, of the usefulness of their university; secondly, of its merits and defects in comparison with the universities of other States; and thirdly, of its urgent needs.”²

¹ Thwing, “College Administration,” p. 22.

² *Op. cit.*, p. 18.

CHAPTER XXI

OTHER COUNTRIES

"In the reorganization of the schools [of Germany] to conform to the civic ideal of education two main tendencies are noticeable: First, the centralization of the school system, the conversion of a vast collection of schools of all grades into a single system capable of direction, supervision and management by a central authority acting for the State; second, the selection of materials of instruction, the formation of courses of study and the methods of teaching best calculated to subserve the needs of the different classes of society while promoting the interests of the State." — RUSSELL, "German Higher Schools," p. 86.

Germany

SCHOOL direction in Germany is centralized, but the unit of administration is not the empire but the kingdom or corresponding division. The "only attempt made to unite the different States of the empire in any matter pertaining to school affairs"¹ was the appointment, in 1875, of an Imperial School Commission. This was composed of six professional members, one from each

¹ Russell, *op. cit.*, p. 191.

of the kingdoms and two representing the other States. Its chief duty was to advise the imperial chancellor as to what schools might with propriety be given the privilege of granting the certificate freeing the holder from one year of military service. It "succeeded in prevailing upon the four kingdoms — Prussia, Bavaria, Saxony, and Würtemberg — to reform their classical schools in 1891-1893 by adopting new programs and timetables in their gymnasia."¹

As it stands to-day, each State is supreme in its own schools. Prussia, foremost in educational affairs as in imperial politics, may be studied as typical. All schools are under the supervision of royal authorities. Since 1772, private schools have been subject to the same inspection by State officials as are the public schools. Except for the fact that no part of their support comes from public funds, private schools are virtually a part of the State system.

"The tendency in Germany to regulate everything that can be regulated applies to the control of public education as to everything else. Little chance is allowed anywhere to individual initia-

¹ Hughes-Klemm, *op. cit.*, p. 159.

tive; small credence is given to the ability of the masses to act aright. The German theory is that it is better to avoid mistakes than to make them even for the sake of gaining experience."¹ Detailed regulations are issued covering the selection of a school site, the construction of buildings, the arrangement and equipment of the classroom, seating, ventilating, lighting, etc. The Supervising Architect visées the plans of local architects and seeks to come between the taxpayers and the pupils in the interests of both. He is free from all political influence and an expert in his profession.

The central educational authority is the *Minister der Geistlichen, Unterrichts- und Medicinal-Angelegenheiten* (Minister of Ecclesiastical, Educational, and Medical Affairs), who is a cabinet officer, responsible only to the crown, by whom he is appointed and retained. He has charge of the financial affairs of his ministry and represents it in parliament. He is the court of last resort in appeals from the decisions of lower departmental officers. With royal approval, he appoints subordinate officials; he confers titles upon teachers,

¹ Russell, *op. cit.*, p. 189.

and, with certain exceptions, ratifies appointments and makes promotions.

The ministry is divided into three departments, of which education is one. This department is presided over by an Under Secretary and two chief assistants. These officers are assisted in the general administration of the school system by *Vortragende Räte* (special counselors), some twenty in number. The department controls examination requirements, determines the course of study, regulates tuition fees, fixes salaries, and pensions and retires teachers. Within the department are two main subdivisions, each under a Director; the first concerned with the common and auxiliary schools,¹ normal schools, and high schools for girls; the second, with higher education, chiefly in secondary schools and universities.

The first step toward a State school system in Germany was taken by Saxony, in 1528, providing for a uniform system of schools throughout the electorate.

In Prussia, in 1794, Frederick William II issued the *Allgemeine Landrecht*, the charts upon which are based all school ordinances and regulations. The most important articles provide :

Schools and universities are state institutions charged with the instruction of youth in useful information and scientific

¹ The *Fortbildungsschulen* are under the direction of the *Handelsministerium* (Ministry of Trade and Industry).

knowledge . . . and may be founded only with the knowledge and consent of the State.

All public schools and educational institutions are under the supervision of the State, and are at all times subject to its examination and inspection. No one shall be denied admission to the public schools on account of his religious belief. . . . Public school children cannot be compelled to attend religious instruction at variance with their own creed.

Public schools designed to give instruction in higher arts and sciences enjoy all rights of corporate bodies, — these vested in governmental boards in accordance with existing school regulations of the district.

Boards appointed by the State are charged with immediate direction and supervision of schools.

Where the appointment of teachers does not rest with certain persons or corporations because of foundations or special privileges it belongs to the State. . . . No important change in organization or methods of instruction can be made without knowledge and consent of provincial school boards.

Only persons of sufficient knowledge, good morals, and sound judgment can be chosen for supervising officers.

In 1817, the Bureau of Education, which had been included in the Interior Department, was made an independent ministry as it stands to-day.

In 1825, the provincial school boards were organized. "At this point the schools were finally separated from the church, and State control was assured." In 1850, it was decreed that "all religious organizations shall order and administer their own affairs independently (subject to general laws of State, made clear by special enactment, 1873) and shall remain in enjoyment of all their educational and charitable enterprises and foundations."

The subdivisions of the kingdom are the provinces, of which there are thirteen.¹ Each province is in turn divided into *Regierungsbezirke*, thirty-six in all, corresponding to our counties. In each county there is an *Abteilung für Kirchen und Schulen* (department for churches and schools), with a county board, presided over by the County President, and composed of county counselors and professional members. This board has jurisdiction over elementary and middle schools, limited to supervising the conduct of teachers, granting leaves of absence, observing in the schools, auditing accounts, and directing the operation of the school laws and ministerial regulations.

Each *Regierung* is divided into *Kreise*, or townships. When cities or other local organizations establish schools and provide for their support, local school boards arise, charged with their direction. The membership of such a *Schuldeputation*, in rural districts called the *Schulvorstand*, is provided for, in general, by

¹ More properly, twelve provinces and the principality of Hohenzollern. The directive body of the province is entirely a professional one and so is treated in the chapter on Supervision.

the law of July 28, 1906, concerning the maintenance of public elementary schools, taking effect April 1, 1908. The board shall consist of (1) one to three members of the executive officers of the city (assistant mayors, aldermen, etc.) appointed by the mayor; (2) the same number of members of the city council, elected by the council; (3) at least the same number of men "well acquainted with educational school systems," among whom there shall be at least one school principal or one elementary school teacher; (4) the parish pastor of the Protestant or Catholic church ranking highest according to length of service; (5) if there are twenty or more Jewish children of school age, the rabbi oldest in service. All elections or appointments are for a term of six years. The powers of these local school boards are limited principally to the choice of the kind of school, the nomination of teachers, and the direction of certain external affairs, such as the managing of the school property, the order and equipment of school premises, regulation of tuition fees, scholarships, etc. The State schools are "in no wise beholden to local authorities."

"When a city will establish a new [secondary] school, it enters into covenant with the State to house it properly, to provide suitable furnishings and equipment, and to support it in a becoming way from year to year. But first it devolves upon the municipality to show that the elementary education of the city is on a satisfactory basis, and that there is genuine need of a secondary school. The approval of the Minister of Education — and nothing can be done without his approval — is also conditioned on special reports made to him by government officials on such matters as, for example, the town's ability to support the proposed institution, and whether it might tend to weaken some other school already established. Approval once granted is further conditioned on the proper execution of essential details: the school site must be satisfactory; the plans and specifications of the building must be submitted to the supervising architect of the province and passed by him; the denominational character of the school, on which depends the selection of a faculty, must conform to the religious belief of the majority of the scholars; the proposed furnishings and equipment down to the drinking cups and blackboard erasers must be of proper quality and amount. Nothing goes unregulated to which a regulation can be at all applied."¹

The status of the universities is a peculiar one. They "occupy a dual position: on the one hand, they are State institutions, on the other, they have the character of free scientific corporations. As State institutions they are founded, supported, and administered by the government. From it they

¹ Russell, *op. cit.*, p. 144.

receive their organization and laws. . . . In Prussia the faculty statutes are prescribed by the ministry of education. The government also defines the function of the universities and grants them their privileges."¹ And yet these institutions have a legal standing as independent corporations of scholars. As Dr. Russell says, "It is a curious and instructive fact that such a democratic institution as the German university, pledged as it is to absolute freedom and independence in all its work, can exist in a German State."²

France

Centralization of directive authority finds its most extreme expression in France. The head of the entire national system is the *Ministre de l'Instruction Publique et des Beaux-Arts* (Minister of Public Instruction and Fine Arts), the office dating from 1828. He is appointed by the President of the Republic and is directly responsible for the entire conduct of the educational affairs of the nation. He has the direct power of appointment of all the faculty of the normal schools, and of the directors and all regular fully

¹ Paulsen, *op. cit.*, p. 76.

² *Op. cit.*, p. 413.

certificated teachers in the higher primary schools. He is directly responsible for the funds placed at the disposal of his department, and no expense may be undertaken nor money paid except on his order. The department consists of thirty bureaux, seventeen of which are concerned with education: one constituting the cabinet of the ministry, five dealing with higher education, five with secondary education, five with elementary education, and one with accounts. The Minister has three different advisory boards who counsel him respectively on legal, administrative, and pedagogic questions.

The legal board is the *Comité du Contentieux* (Committee on Litigation), of sixteen members, all lawyers, appointed by the Minister. Although the Minister is under no legal obligation to consult this board, or to follow their advice, he is quite ready to avail himself of their counsel on legal questions.

The administrative board is the *Conseil Supérieur de l'Instruction Publique* (Superior Council), composed of over fifty members, drawn from the department, and some appointed by the President of the Republic and the others elected by the teaching force of all grades. This board

meets but twice a year and details most of its work to a Permanent Section, composed of fifteen of its members. The Superior Council has administrative, judicial, and disciplinary powers over the whole educational system. It is the one of the three boards toward which the Minister is legally responsible. He must consult it in regard to the regulation of examinations, the conferring of degrees, the selection of textbooks, and certain other matters, and must conform with its recommendations.

The pedagogic board is the *Comité Consultatif* (Consulting Committee), a professional body composed of three sections, one for each grade of education. Its function is solely advisory.

Origin of the System. — "At the time of the Revolution of 1789, education was being eagerly discussed. Its reform was urgent. In the chaos of the period education was not lost sight of, but events moved too quickly for anything definite to be done. But the general upheaval had so loosened the whole fabric of society that it was an easy task for Napoleon I to place the whole of the national education in the hands of the State. There were no vested interests to conciliate. There was a clear slate to write upon. Such conditions are not likely to occur again in any country."¹

¹ Report of an Inquiry into the Conditions of Service of Teachers in English and Foreign Secondary Schools, London, 1910, p. 37.

France is divided politically into ninety departments. The governing body of the department is an elected General Council, which makes all appropriations, including those for educational purposes not provided for by the national government. The expenses are chiefly for building equipment for mandatory normal schools and such other schools as they choose to conduct. The school board for the department is the *Conseil départemental*, four of whose fourteen members are members of the General Council. This board is the financial agent of the General Council in school matters, and, having general direction over certain administrative details, "exercises no little influence over the educational affairs of its department."

The smallest subdivision of the department is the commune, and each commune has a *Commission Scolaire*, a local school board having little real powers and yet able to further the work of the schools in certain directions. The *Maire* of the commune is the President of this board and is responsible for enforcing the compulsory education law. Communes are grouped into cantons, for each of which the departmental

council appoints a delegate who has the right of visitation of primary schools.

Great Britain and Ireland

As France stands preëminently for centralization, so does England stand for decentralization. No direct authority over schools is assumed by the government, but such authority is exercised in practice by a system of financial aid. This aid is conditioned upon compliance by each school with certain regulations; thus is the work of the schools standardized without the surrender by them of any of the "rights" so dear to Englishmen.

"Before 1833 the government of Great Britain did not concern itself with public education. Since the Middle Ages the principle had prevailed in the British Isles that the State as such had no right to interfere in the educational affairs of the people."¹

"The Act of 1870 divided England for educational purposes into districts, which were not necessarily conterminous with districts formed for political purposes. It charged the Government with seeing that in each of these districts there were ample provisions existing for the education of all children. If this provision was already made by voluntary schools, it protected these schools in their possession by preventing the establishment of any other.

"If, however, the voluntary schools did not amply supply the need, it then enacted that the qualified electors of the dis-

¹ Hughes-Klemm, *op. cit.*, p. 481.

trict should institute a school board, and that this board should establish schools sufficient to give public elementary education to every child between the ages of five and fourteen when the schools already in existence did not educate.”¹

In 1899, there was created the National Board of Education for England and Wales, composed of certain members of the government — the Lord President of the Council, appointed by the King and sitting in the cabinet, the five Secretaries of State, the First Lord of the Treasury, the Chancellor of the Exchequer. The board maintains a permanent staff, consisting of a Secretary-General, and Accountant-General, four Assistant Secretaries — one for each different grade of education, — and a Director of Special Inquiries and Reports. The President of the board receives a salary of \$10,000; the Secretary, \$9000; and the Assistant Secretaries, \$6000. In 1907 the work of the board was separated into two divisions, one for England and one for Wales, each with its division head responsible to the President of the Board. This board administers the Parliamentary grants upon the basis of satisfactory work being done in the schools as determined

¹ Sharpless, *op. cit.*, p. 16.

by its own inspectors. It issues regulations, upon compliance with which by the schools the receipt of grants depends, in regard to curricula, teaching staff, equipment, attendance, school meetings, etc. The Board of Education has an advisory board, similar to the French *Comité Consultatif*, known as the Consultative Committee, consisting of eighteen members, two thirds of whom are representatives of educational institutions. It reports and advises on matters referred to it by the board.

Local administration is in the hands of a local governing body, organized under act of 1902, known as County Council, or Borough Council, or Union District Council. The work of school direction is done chiefly through committees of from fifteen to fifty, each of which must contain at least one woman. The number of separate local authorities for educational affairs, July 31, 1908, was:—

Councils of administrative counties	.	.	.	.	62
Councils of county boroughs	.	.	.	.	74
Self-governing municipal boroughs	.	.	.	.	137
Self-governing urban districts	.	.	.	.	54
Scilly Islands	.	.	.	.	1
Total	.	.	.	.	328

In Scotland, general control is vested in the Department of Education, instituted in 1872, the head of which is the Secretary for Scotland. The local unit is the parish. Elected local school boards have large directive powers over elementary and secondary education—may deal with neglectful parents, maintain medical inspection, make special provision for auxiliary education, etc.

In Ireland, since 1845, elementary education has been under the direction of the Commissioners of National Education in Ireland. The Intermediate Educational Board examines candidates from secondary schools and distributes grants. A third authority, the Department of Agricultural and Technical Instruction, directs technical secondary and scientific education.

Other Countries

Austria.—Under Ministry of Worship and Instruction.

Belgium.—Public education regulated by law. Minister of Interior and Instruction. All elementary communal teaching directed by the communes.

Denmark. — Ministry of Ecclesiastical Affairs and Public Instruction.

Greece. — Ministry of Ecclesiastical Affairs and Instruction.

Hungary. — Ministry of Worship and Instruction.

Italy. — Control entirely in the hands of the State, under Ministry of Public Education. Even private persons must have permission to manage a school.

Netherlands. — Minister of the Interior.

Norway. — Ministry of Ecclesiastical Affairs and Public Instruction.

Portugal. — Ministry of the Interior.

Russia. — Chiefly under Ministry of Public Instruction. Nation divided into fifteen educational districts. Many special schools under other ministries, *e.g.* War, Agriculture, Justice, Commerce and Industry.

Spain. — Has a minister of Public Instruction and Fine Arts and a Council of Education, but renders little State aid.

Sweden. — Ministry of Ecclesiastical Affairs and Education.

Switzerland. — Decentralized; government by cantons.

Australia.—Each State directs its schools through an Educational Department.

Canada.—Direction by provincial governments.

Argentina.—Each State manages its schools independently. National government controls those at Federal capital and in national territories, through Minister of Justice and Public Instruction, and National Council of Education, salaried, and appointed by the President of the Republic.

Bolivia.—Modeled after French organization. Ministry of Justice and Public Instruction.

Brazil.—Elementary and secondary schools controlled by each State; higher education by the Federal government.

Chili.—Ministry of Justice and Public Instruction directs primary schools; Council of Public Instruction together with the President of the University of Chili directs secondary schools.

Colombia.—Minister of Public Instruction.

Ecuador.—Minister of Public Instruction, Worship, and Justice.

Uruguay. — Minister of Agriculture, Industry, Public Instruction, and Works.

Japan. — Entirely under national control; administered by Minister of State for Education, who is directly or indirectly in charge of whole educational system of the empire.

PART III. SCHOOL SUPERVISION

CHAPTER XXII. SCHOOL SUPERVISION

CHAPTER XXII

SCHOOL SUPERVISION

"Every child, parent, and educational interest stands in direct touch with the superintendent. He must shape his conduct from the standpoint of the child, as reflected, it may be, through the parent; he must justify his theory and his practice before the highest court of public appeal,—the people themselves." —TOMPKINS, "School Management," p. 89.

United States

It is becoming increasingly the practice for the directive authorities or boards to delegate to professional officers the exercise of executive functions and the initiative as to technical program. The boards of education are coming to deal chiefly with matters external to the schools, buildings, equipment, finance, etc. As regards internal affairs, they lay down general regulations and then transfer to the professional experts the responsibility for properly supervising the detailed work of the schools.

Just as there are, in the United States, boards for school direction for the various-sized units of administration, so are there corresponding grades

of supervising officials with differing areas of jurisdiction. The office of school superintendent is but a century old and originated in the larger administrative units. The first State superintendency was established by New York, in 1815; the first county superintendency, also by New York, in 1841; and the first city superintendency by Buffalo and Louisville, in 1837.¹

“Rural school supervision, such as it is, is the result of long growth. The Massachusetts Act of 1789 charged the ministers of the Gospel and selectmen of the several towns or districts with the supervision of schools.”² Their tasks were both directive and supervisory. As their duties multiplied and became more complex, they were separated and assigned respectively to school boards and school superintendents.

All of the States have a supervisory educational officer. His title varies from State to State.³ In

¹ 1839, St. Louis, Providence; 1852, New York; 1853, Brooklyn; 1854, Chicago; 1866, Albany; 1869, Washington; 1883, Philadelphia.

² Foght, *op. cit.*, p. 51.

³ State Superintendent of Education: Alabama, South Carolina, Vermont.

Secretary of State Board of Education: Connecticut, Delaware.

State School Commissioner: Georgia.

State Superintendent of Public Schools: Maine, Missouri, Wisconsin.

a majority of the States he is elected in the same way and on the same terms as is the Governor. In some he is appointed: by the Legislature, as in Virginia, Vermont, Rhode Island; by the Governor, as in New Hampshire, New Jersey, Pennsylvania; by the Board of Education, as in Connecticut, Massachusetts, New York. His duties vary, but, in general, they may be said to be administrative, supervisory, statistical, and advisory. Among those specifically assigned to him in one State or another are: the distribution of the State school money; the certification of teachers; general supervision of the entire State school system; the making of annual reports which are in the nature of advisory messages to the legislature; the filling of vacancies in subordinate grades of superintendents; the enforcement of the compulsory education laws; the preparation of courses of study. The duties of the superintendents of

State Superintendent of Public Education: Louisiana, Maryland, Mississippi.

State Commissioner of Education: Massachusetts, New York.

State Commissioner of Common Schools: Ohio.

Commissioner of Public Schools: Rhode Island.

State Superintendent of Free Schools: West Virginia.

State Superintendent of Public Instruction: all other states.

the several States, while varying greatly, still have many features in common; and the tendency is toward still greater uniformity. Among the instruments working toward this end are the Conferences of State Superintendents, the first of which was held in 1908.

Similar divergencies exist as to the functions and manner of selection of the County Superintendents. In most Northern and Western States they are elected for terms of from two to four years. They are appointed—by the County Board, in some Southern States; by the State Board, in New Jersey; by the Governor, in Delaware; by the County Court, in Tennessee and Arkansas; by the State Superintendent in Alabama. Their chief function is to standardize and harmonize the work of the schools, acting as the intermediary between the State authorities and the schools, between them and the local boards, and between the lay boards and the professional employees.

The functions of the City Superintendent also vary: he is the executive officer of the Board of Education; he represents the interests of the teachers and pupils before the board; he in-

spects and supervises the detailed work of the teachers; he certifies teachers; he appoints and dismisses teachers, or else nominates them to the board or recommends their dismissal; he recommends courses of study; he selects textbooks and other internal equipment; he arranges for the grading and promotion of pupils; he administers the compulsory education law.

The status of the superintendent, as it should be, is set forth by the special commission which investigated the schools of Baltimore, as follows : —

“ Educational Management. — The head of this department is the superintendent of schools, together with his corps of assistants. He should be selected with great care, and from the nation as a whole rather than from a single city or State. Once selected, he should be clothed with authority commensurate with his responsibility, and then expected to get the desired results.

“ The independence of the superintendent as the chief executive officer in educational affairs should be recognized by the members of the legislative branch, and no member of the school board should seek to interfere with him in any way in the exercise of his duties as defined by law and regulation. The rule of mutual respect and helpfulness should prevail between the two branches of the school department. A superintendent should not attempt to carry out any policy that has not been previously approved by the board, nor to dictate policies, for his function in the framing of new policies ends with recommendation. Board members, on the other hand, should not have any direct participation in affairs which are within the

field of executive action and discretion. The superintendent and his assistants, after being given a fair opportunity to discharge their proper functions, stand or fall according to the value of the results which they obtain."

In some cases, the superintendent gathers around him an Advisory Council of principals; in some cities, assistant superintendents, or a board of associate superintendents, are provided for. In Boston, the Board of Superintendents consists of seven members; in Philadelphia there are sixteen, in Chicago nine, and in New York eight associates and twenty-six district superintendents.¹ City superintendents are elected on terms ranging from one to seven years and receive salaries of from one to ten thousand dollars.

Leading cities in each group are : —

Electing superintendent for *one year* : Atlanta, Chicago, Des Moines, Philadelphia, Providence; for *two years*, Louisville, Manchester, N.H., Columbus, O., Wheeling, W. Va.; for *three years*, Denver, Worcester, Mass., Detroit, Minneapolis, Pittsburgh, Milwaukee; for *four years*, San Francisco, Jacksonville, Fla., Indianapolis, St. Louis, Buffalo; for *five years*, New Haven, Ithaca, N.Y., Cleveland, Cincinnati; for *six years*, Boston, New York; for *seven years*, Elizabeth, N.J.

The highest salaries are : \$10,000, Chicago, New York; \$7500, Philadelphia; \$7000, St. Louis; \$6500, Seattle; \$6000,

¹ For the principles of administration applicable to the office of superintendent, see Chancellor, "Our Schools," Chap. V.

Boston, Cleveland, Cincinnati, Denver, Detroit, Jersey City, Milwaukee, Newark, Pittsburgh; \$5800, Indianapolis; \$5500, Minneapolis; \$5000, Baltimore, Bayonne, N.J., Buffalo, Des Moines, Louisville, Los Angeles, Newton, Mass., Omaha, Rochester, St. Paul, Washington, Yonkers.

Germany

Each Prussian province has its *Provinzial-schulkollegium*. This provincial board is composed of the President of the Province, who is *ex officio* chairman, and of from three to five Inspectors, who are in effect superintendents. They are appointed by the crown, upon the nomination of the Minister, from a selected list of secondary school principals. They hold office until retired in regular order. They are assigned, at least one for the *Gymnasien*, one for the *Realschulen*, and one for the *Volksschulen*. Their powers and duties are comprehensive: they supervise all pedagogic matters; they revise plans, ordinances, and regulations; they pass upon textbooks in use and compile new ones, which are printed by the consent of the Minister; they appoint, dismiss, discipline, and suspend teachers; and in general, they keep the central department informed as to all school affairs within the province. Dean

Russell characterizes these provincial boards as "the mainstay of the Prussian school system."

Subordinate to these inspectors are the *Kreis-schulinspektoren*, the superintendents in the counties, little more than one fourth of whom are engaged exclusively in the work of supervision, the others being clergymen, school principals, etc. There are, too, *Ortsschulinspektoren* (local inspectors), generally the local pastors, with no technical preparation for educational work. The General Superintendent of the Evangelical church and the Catholic Bishops have the privilege and duty of visiting every secondary school once in six years and reporting on religious conditions. Every city employs its *Stadtschulrat*, professional superintendent, who has general supervisory powers. The universities are supervised by the Ministry through a resident Curator.

The form of school supervision in the other kingdoms much resembles that of Prussia, except that in Saxony there are no County Inspectors.

France

The Minister of Education being a political appointee and not a trained educator, the actual

professional executive heads of the system are the three Directors who are in charge of the bureaus of education, one for each large group of the system, elementary, secondary, and higher.

"They are all conspicuous for their educational qualifications, for they have gradually made their way up the line, and promotion in France is slow, but merited."¹ They are usually selected from among the university professors.

For purposes of educational supervision, the ninety *departments* of France are grouped into seventeen academies. At the head of each academy is a Rector, appointed by the President of the Republic, who has supervisory charge of the educational system of all grades. He is the head of the university in his academy, each of the four faculties having its Dean, and he is also president *ex officio* of the administrative board of each *lycée* and *college*.

The Minister of Education is *ex officio* Rector of the University of Paris, but the university actually is governed by the Vice Rector, owing to the many other imperative duties of the minister and the lay and political character of his office. Thus, the Vice Rector of the University of Paris is nominally out-ranked by the rectors of all the other universities, and yet he

¹ Farrington, "Secondary Schools," p. 91.

is the most powerful of all through his relations with the government.

For general purposes of inspection the nation is divided into seven inspection districts, to which are sent, by annual reassignment, eleven or more *Inspecteurs generaux*. These general inspectors are appointed by the President on the nomination of the Minister. They are chosen from the teaching ranks of the secondary schools or universities, and receive salaries approximately of \$2400 and expenses. Their duties are to visit the normal and primary schools, to report on the work of the subordinate inspectors, and to report generally upon the progress of instruction.

Each academy has its staff of *Inspecteurs d'academie*, of whom there are in all about one for each of the ninety departments. These inspectors are appointed by the Minister and are chosen from among university professors, heads of *lycées* or *colleges*, secondary school professors of high standing, and primary inspectors. Their salaries range from \$1300 to \$1600. They are the active supervisors of the secondary and elementary schools of their districts, though their supervision of the secondary schools is practically but nominal.

Subordinate to these are the Primary Inspectors, about five to each academy inspector, appointed by the Minister upon competitive examination. Upon these devolves most of the supervision of the elementary schools, each having some 250 teachers under his charge.

England

In England the Board of Education employs a Chief Inspector for each of various branches of education; that for secondary schools is paid \$6000, and those for elementary and technical schools, \$5000. Subordinate to them are inspectors who visit and examine the schools chiefly for the purpose of determining whether the conditions upon which the annual grants are made have been fulfilled. They are grouped into grades: Divisional Inspectors, on salaries of \$4000 to \$4500; Inspectors, \$2000 to \$4000; and Sub-Inspectors, \$1000 to \$2600; and for secondary schools, Staff Inspectors, \$4000 to \$4500, and Inspectors, \$2000 to \$4000. "The powers of an inspector are extremely wide. He may visit an elementary school in his district at any time and as frequently (or infrequently) as he likes. He must approve

the syllabus of instruction, and he may require brief notes of lessons to be produced, or such other evidence as will show that the lessons have been duly prepared. No annual Parliamentary grant is paid on behalf of the school unless the report of the inspector is satisfactory. His report, after passing through the hands of his chief and those of the examiners at the central office, is returned to the school, and permanent record of it is made in the log book. Inspectorial power is not so great in secondary and technical as in elementary schools. Still, the inspector must approve the curriculum and certify that the instruction is satisfactory from a hygienic point of view.”¹

¹ Peter Sandiford, “The Training of Teachers in England and Wales,” New York, 1910, p. 13.

PART IV. SCHOOL MANAGEMENT

CHAPTER XXIII. SCHOOL MANAGEMENT

CHAPTER XXIII

SCHOOL MANAGEMENT

"It must be remembered that the principal is the key of the educational system, and fortunate is that school system in which, in every school, there is a competent principal without the additional obligations of a regular full-day class teacher." — CHANCELLOR, "Our Schools," p. 103.

"In other words, the principal or the superintendent may dominate every classroom under his supervision, almost without regard to the limitations of the individual teachers. Typical schools in every city system bear compelling testimony to this fact. The principal *is* the school." — BAGLEY, "Craftsmanship in Teaching," p. 75.

THE grouping of a number of classes within the same building has led to the need for an executive head for the group. In America, when infant education is undertaken by the public school system, it ordinarily is annexed to an elementary school organization. Other than in this case the unit of administration is usually limited to classes of one grade of school organization, although two are sometimes found. For instance, in smaller towns in America, the high school is generally added to one, usually the largest, of the elementary schools,

and the principal has charge of both schools. In fact, he is frequently also the superintendent of the entire system. Again, in Germany, some of the *Gymnasien* have the preparatory *Vorgymnasium* attached. Also, in the United States, a few colleges have preparatory departments,¹ but abroad the higher institutions do not undertake secondary work.

Thus there have developed the special problems of administration with the single school as the unit; and thus has arisen that phase of the science and art of School Administration which we term School Management. The "school" ranges in size from the two-class rural elementary school to the city elementary or high school of fifty classes or the college or university with its various departments and its faculty numbering scores, or even hundreds. The problems of all the schools of this wide range have a certain character in common, and thus must the successful heads of all

¹ This is more frequently the case in private institutions than in public. In 1909-1910, of the 938,437 pupils reported as receiving secondary instruction in public schools, 12,339, or 13 per cent, were in preparatory departments of universities and colleges; whereas, of the 172,956 pupils in private schools, 53,703, or 31 per cent, were in such preparatory departments.

have certain executive qualifications. Increase in the size of the unit, however, demands a greater degree of executive ability, and each grade of school requires a special quality of this ability. Thus many a successful director of a college with a faculty of ten would be appalled by the administrative details of a fifty-classroom high school, and the average university president and the average elementary school principal would both make "a mess of it" if they were to exchange positions.

It is not in place in this volume to discuss the principles and methods applying to proper school management, concerning which a growing bibliography is fast forming.¹ We must content ourselves with a study of the position of the school "manager," briefly noting how he is regarded in

¹ Including, already cited: for elementary schools, Arnold, Bagley, Baldwin, Chancellor, Perry; for secondary schools, J. F. Brown, Chancellor, Hollister; for colleges, Eliot, Thwing. Also, Chauncey P. Colgrove, "The Teacher and the School," Scribner, 1910; Samuel T. Dutton, "School Management," Scribner, 1904; Charles B. Gilbert, "The School and its Life," Silver, Burdett, 1906; Levi Seeley, "A New School Management," Hinds and Noble, 1903; Arnold Tompkins, "The Philosophy of School Management," Ginn, 1898; E. E. White, "School Management," American Book Co., 1893; William T. Foster, "Administration of the College Curriculum," Houghton, Mifflin, 1911.

the countries whose schools have enlisted our interest.

United States

If a generalization might be ventured, it would be to the effect that the headship of a school is more sought after by those in the ranks in America than on the continent. On the one hand the units of administration here are larger, and on the other, the foreign executive is more a clerical than an inspirational head. Where, as in Germany, the teachers universally are thoroughly grounded in the science and art of their profession, and the principal is little, if any, better trained or equipped than his teachers, it is natural that the principalship is not quite so highly rated as a prize. In the United States, the principalship is invariably regarded, at least theoretically, as a position demanding higher professional qualifications than those of the teacher.¹ The

¹ In this respect, the position differs from that of the superintendent. Very few of the State superintendencies have any rigid professional requirements for eligibility. In the cities, too, the eligibility requirements for superintendents are frequently less than for principals. Compare this with the French system where every succeeding executive position up to (but not including) the Minister of Education is obtained only upon officially demonstrated special fitness.

thought is that, in order to be the inspirational influence in the school that he should be, the principal should be as well prepared as any of his teachers, and in addition should have the peculiar qualities that make for leadership. Substantial financial recognition is made of the position, principals receiving salaries averaging eighty per cent higher than those of his teachers.¹

In the headships of the American colleges is found the highest type of executive management. The title of President is that given in most American colleges, though Chancellor and Provost are in limited use. In the early days the chief qualification was ecclesiastical, the college

¹ In the Report of the Committee on Salaries, Tenure, and Pensions of Public School Teachers in the United States to the National Council of Education, National Educational Association, 1905, statistics are collated as to the salaries of teachers in the high and elementary schools of the cities of 8000 population and over. This report shows that 576 high school principals average a salary of \$1869 and 8023 high school teachers average \$1046. Also, 6213 elementary school principals average \$1189 and 70,230 teachers, \$661. This shows an increment to the principal of 79 per cent in high schools and 80 per cent in elementary schools. The difference is more marked in the larger cities, the increment in the cities of 1,000,000 population being 127 per cent for high school principals and 152 per cent for elementary school principals, whereas the corresponding percentages in cities of 8000 to 10,000 are 80 per cent and 49 per cent.

presidents almost invariably being clergymen. These were succeeded by the scholastic type, but to-day, while it is assumed that the president will have had a scholastic foundation and successful experience in the faculty, his primary qualification must be marked executive ability. The rewards of the man who measures up to this position are great, chiefly in recognition, status, and influence, and also financially, when compared with his fellow teachers.

"The number of administrators who are masters both of profound and extensive policies and of slight particulars is small. When the administrator attempts to do both services, one of three things usually happens; either policies suffer, or details are neglected, or the administrator dies and the administration breaks down."¹ Dr. Eliot is cited as a notable exception.

Dr. Thwing, in an interesting chapter,² discusses the College President. He says he may maintain any one of six relations with the faculty, trustees, students, alumni, and public, viz.: conflict, separateness, subjection, mastery, coöperation, devotion. He concludes by naming seven "opportunities" open to the president of the American college: of living with youth; of living with scholars and gentlemen; of meeting the best

¹ Person, *op. cit.*, p. 24.

² In "College Administration," p. 49. See also, William D. Hyde, "The College Man and the College Woman," Houghton, Mifflin, 1906, for interesting chapter (XIV) entitled "The Six Partners in College Administration."

people on their best side ; of uniting the executive and the scholastic, the practical and the theoretical ; of transmitting wealth into character ; of associating one's life and work with a lasting institution ; and in doing somewhat for the nation and for the world through giving inspiration, training, and equipment to American youth. " These seven opportunities represent the mighty satisfactions which the college president enjoys. They help to constitute his work as one of the most interesting and happiest works which it is given to any man to do."

Germany

In Germany, principalships of elementary schools are awarded only upon successful experience or upon examination written and oral. In Prussia, the examination may be taken by women after five years' service and by men after from five to eight years. The head of a secondary school is known differently in different States as Director or Rector. In Prussia both terms are used, but with a distinction in grade: it is Director of a *Gymnasium* and Rector of a *Progymnasium*. In Saxony the terms are used in the reverse order. The heads of these schools are selected with great care, "not only for the professional responsibilities involved, but also because through them the government expects to watch over the political development of future

leaders in the State. . . . By custom, however, the choice of Director is almost entirely left to the judgment of the provincial inspector—himself *persona grata* to the king and ministry who retain him in office.”¹ The director is required to teach a stipulated number of hours weekly. He usually lives in the building, has heavy clerical work to do, exercises supervision over from twenty to thirty teachers, generally his equals in scholarship,² and has been characterized as “the hardest-worked man in the profession.” While his salary is but little larger than that of his experienced teachers, his status is high. He is free to take part in public life, and several of the directors are members of the *Landtag*.

The executive officer of each university is the Rector, who is elected from among their number by the “ordinary”³ professors for a term of one year. The election is confirmed by the crown.

¹ Russell, *op. cit.*, p. 376.

² “The head teachers, rectors, or directors, as they are variously called, are always men, and their duties consist, not only of supervision, examination, and general arrangement, but also of regular teaching. These lessons duly appear on the time-table, varying in number according to the size of the school; and the organization of the school renders them automatic and compulsory.” — Winch, *op. cit.*, p. 32.

³ See p. 256.

The Rector directs the current business and presides at the meetings of the University Senate and the various committees. This Senate is composed of the Rector, his immediate predecessor in office, the Deans of the faculties, and Senators elected for one year by the ordinary professors, and the University Judge. Each faculty elects its Dean from among its members, to serve for one year. Deans and Rectors receive remuneration beyond their regular salaries.

France

In France, elementary school principals are selected by examination. They receive a bonus of from \$40 to \$80 beyond their schedule salaries as regular teachers, and the schools which they manage have a small number of classes. In the secondary schools, the head of the *lycée* is known as the *proviseur*, of a *college* as the *principal*. Either position is a difficult one, though all questions of discipline are in the hands of a special officer called the *censeur*. In addition to the salary which he receives as a member of the teaching staff, he is paid an *indemnité de direction*, which, together with dwelling, heating, and lighting,

brings his income to the equivalent of \$1750 to \$3000. The Rector of each university is, as we have seen, a man of influence throughout his entire academy, performing virtually all the duties of the Minister. Each of the four faculties has its Dean.

England

In England, the head master of secondary schools is paid a much larger salary than his teachers, which results in the position being sought by those in the ranks and outside of them. In criticism of the condition, the English commission of inquiry spoke as follows: "Even now, in England, can be found such anomalies as headmasters who have never been assistants; inspectors who have never taught in the type of school they inspect; county and borough secretaries and organizers of 'education' who were selected chiefly for their office experience or their power of public speaking."

PART V. CLASS MANAGEMENT

CHAPTER XXIV. THE TRAINING OF THE TEACHER

CHAPTER XXV. THE STATUS OF THE TEACHER

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THE TRAINING OF THE TEACHER

"As the professional education of the lawyer and of the doctor is a contribution of the nineteenth century, so the professional education of the teacher is to be one of the worthiest contributions of the new century to human affairs."—THWING, "History of Education," p. 13.

As we go along the line of the State's educational agencies—school boards, superintendents, principals—we come at last to the one officer who is to the pupil the real embodiment of the State's interest in and authority over him—the teacher. The more distant agents have their influence upon him, it is true, and yet they recede into a more or less impersonal background in the presence of the teacher who is part of his everyday life. That this teacher shall, in the sustained, intimate, daily relationship of authority and influence, put into effect the educational purpose of the State, is the end for which the "system" exists. Hence, it is highly important that this teacher shall understand his business. His handling of the affairs of the classroom con-

stitutes that branch of the art of school administration which we call class management. As in the case of school management, it is not within the province of this book to reach over into any presentation of the principles governing this art, all of which have been voluminously treated in the pedagogic literature of many languages. The scope of this volume limits us to a brief study of how the State regards this, essentially its most important school official, and how it is stimulating him to better effort and recognizing his value to itself.

That the delicate work of imparting instruction, inspiring ideals, and influencing conduct should not be left to untrained hands seems axiomatic. And yet the fact is that in the schools of the civilized world a majority of the teachers employed have had no professional training. This is not because appreciation of the significance of this fact is wanting among the leaders of the world's nations, but rather because the people themselves have not yet mounted to a clear outlook upon human destiny, nor gained insight as to the relative values of its factors. Some day the race may be induced to spend as much upon education as it does upon alcohol and to-

bacco, or upon warfare; then will it insist that the culture of its children shall be placed in as competent hands as it is possible to secure.

We are not without hope, however, as we survey the gains that the recent years have made in the professional training of teachers. The normal school, its idea derived from Prussia and its name from France,¹ is now a recognized feature in the educational systems of the leading nations.

United States

There are five chief classes² into which the schools for the training of teachers may be divided: the State normal schools, the private normal schools, the city training schools, the pedagogic departments in colleges and universities, and the teachers' colleges. Of the State normal schools, the first was established in Massachusetts, in 1839, New York following in 1844;³ of the city train-

¹ Normal school is the prevailing title in France, Italy, Spain, Portugal, Greece, and the United States; Teachers' Seminary, in Germany, Russia, Sweden, Norway, Denmark; Training School, in Austria, Netherlands, England.

² See Dexter, *op. cit.*, p. 377 *et seq.*

³ According to G. W. A. Luckey, "The Professional Training of Secondary Teachers in the United States," *Columbia Contributions*, 1903, p. 56, the early normal schools, with dates of establishment, were: —

ing schools, Philadelphia's was organized about 1820 and Boston's in 1852. To-day there are about 200 public normal schools, State and municipal, supported by public appropriations of nearly \$10,000,000 annually.

For 1910,¹ 196, divided among the groups of States as follows: North Atlantic, 69; South Atlantic, 26; South Central, 23; North Central, 60; Western, 18. Of the individual States, only Delaware, Tennessee, Wyoming, Utah, and Nevada are unrepresented; the largest numbers are, New York, 18; Pennsylvania, 17; Wisconsin, 15; Massachusetts, 11.

Of the total enrollment of normal pupils of 79,546, the leading States contribute: Pennsylvania, 9368; Michigan, 6012; Illinois, 5535; New York, 5186; Missouri, 4811.

Of the total number of normal graduates of 13,725: New York, 1902; Pennsylvania, 1840; Michigan, 1242.

Of the students, 17,096 were male and 62,450 female; of the graduates, 1783 male and 11,942 female.

Massachusetts,	Minnesota, Winona . . .	1860
Framingham . . .	Wisconsin, Madison . . .	1862
Westfield . . .	Maine, Augusta . . .	1863
Bridgewater . . .	California, San José . . .	1862
New York, Albany . .	Kansas, Emporia . . .	1865
Connecticut, New Britain	Maryland, Baltimore . .	1865
Michigan, Ypsilanti . .	Vermont, Randolph . .	1867
Rhode Island, Providence	Nebraska, Peru . . .	1867
Iowa, Iowa City . . .	Indiana, Terre Haute . .	1867
New Jersey, Trenton . .	West Virginia, Huntington	1867
Illinois, Bloomington . .	Fairmont . . .	1867
Pennsylvania, Millersville	West Liberty . . .	1867

¹ Report of the Commissioner of Education, 1910, p. 1080 *et seq.*

Of the \$9,266,195 of public appropriations, \$6,630,357 was for support and \$2,635,838 for buildings. Other sources of revenue were:—

Tuition fees, etc.	\$772,527
Room rent	42,980
Board and other noneducational services . . .	1,236,981
Productive funds	153,782
Private benefactions	
For increase of plant	103,000
For endowment	468,044
For current expenses	137,563

This made a total of receipts of \$12,595,891.

State support has steadily increased:

1890-91	\$1,695,616
1895-96	3,312,709
1900-01	3,777,702
1905-06	6,193,271
1909-10	9,266,195

The courses are usually four years, modified to two years for high school graduates, although the requirements differ widely. On the whole, the trend is decidedly toward an increase of requirements for admission looking toward the completion of a four-year high school course as the condition, and the extension of the work of the schools until it shall be equivalent to the regular four-year college course leading to the bachelor's degree. The increasing demand for teachers of

special branches is leading to a specialization of normal school courses in manual training, domestic science, agriculture, etc.

There is a larger number of private normal schools to-day than twenty years ago, but the percentage of the total number of normal students which they contribute has fallen in that time from twenty-three to twelve. It is easy to understand that the private schools, lacking heavy endowments, are unable to meet the competition offered by public institutions liberally supplied with public funds.

There are, however, 68 private normal schools reported, with 9015 students, and 1705 graduates, receiving from fees for tuition, room rent, board, etc., productive funds, State and city appropriations, private benefactions, and other sources, over \$2,000,000.

In the public normal schools 21.5 per cent of the students are male, while in the private schools, they constitute 29.4 per cent of the enrollment.

The proper function of the normal schools would seem to be limited to the preparation of teachers for elementary schools. "It is only when the normal schools with limited resources have overreached their bounds and have endeavored to prepare teachers for *all* grades of

school work, that they have received well-merited criticism."¹ Although as long ago as 1895 the Committee of Fifteen of the National Educational Association promulgated the proposition that "the degree of scholarship required for secondary teachers is by common consent fixed at a collegiate education," to-day few of the States fix any requirement for licenses to teach in secondary schools beyond that for teaching in elementary schools. There is, however, a growing recognition of the need of the training of teachers in institutions of collegiate and university grade. This need is met, so far as it is met, by many colleges and universities which maintain departments or separate schools in the subject of Education and grant the bachelor's and advanced degrees in Pedagogy. Seven thousand students are taking courses in these departments.²

In 1832, New York University established courses in pedagogy, but the work was dropped at the end of a year, to be revived in 1890 when its School of Pedagogy was organized. Brown University maintained a normal department for four years, beginning in 1850; Iowa established courses in 1873, and in 1878 the College of Normal Instruction. In 1879

¹ Luckey, *op. cit.*, p. 61.

² In 1910, 2792 men and 4171 women; total, 6963.

Michigan University opened its department of Science and Art of Teaching, the first of its kind, having for its distinct purpose the professional training of secondary teachers. In 1888 Columbia founded its Teachers College, and in 1901 the University of Chicago organized its School of Education.

Germany

Germany is preëminently the land of the trained teacher. Elementary school teachers receive their training in *Volksschullehrerseminarien*.¹ The course in Saxony is six years in length, but the first three years are devoted to preparatory work equivalent to that done in separate preparatory schools in Prussia and Bavaria, where the normal school course is three years. Pupils enter the preparatory classes at the age of fourteen. In Prussia the normal schools are under the direction of the provincial school boards, and their expense is borne almost entirely by the State. Tuition is free to the students, who are admitted by examination in order of standing. Many of the students board at the schools, the State paying a large share of their living expenses. Graduation from these schools

¹ For full account of these schools, with bibliography, see I. L. Kandel, "The Training of Elementary School Teachers in Germany," New York, 1910, p. 42 *et seq.*

is practically the only means of obtaining a position as teacher in the elementary schools. Graduates agree to teach wherever assigned for at least three years. The Prussian curriculum, which differs but slightly from those in Saxony and Bavaria, is arranged as follows (weekly-hours):—

	PREPARATORY			NORMAL		
	1	2	3	1	2	3
Religion	4	4	3	3	4	3
German	5	5	5	5	5	3
French and English . . .	3	3	3	2	2	2
History	2	2	2	2	2	2
Mathematics	5	5	5	5	5	1
Natural Science	2	4	4	4	4	1
Geography	2	2	2	3	2	1
Writing	2	2	1	—	—	—
Drawing	2	2	3	2	2	1
Gymnastics	3	3	3	3	3	3
Music	3	4	5	4	4	4
Pedagogy	—	—	—	3	3	3
Methods	—	—	—	—	4	4
Practice Teaching	—	—	—	—	—	4-6

Although the proportion of women teachers in the elementary schools of Germany has been steadily increasing, it is now only 18 per cent of the entire number, and the training of women

teachers has not received the same attention as the training of men. In Prussia there are sixty training schools for women, royal and municipal, in which the course is much the same as that given in the men's schools, except that the amount of practice teaching is usually not so great.

The training of secondary teachers is a distinctively different affair. The candidate for this grade of position spends from three to five years in a university. The course is not prescribed, but naturally he specializes in education and the subject he expects to teach. He must pass a severe examination (*Staats-Examen*), set by regularly appointed examining boards, in both scholastic and professional subjects.¹ Upon certification, and he would not presume to teach any subject in which he had not been duly certificated, he is assigned to a secondary school where he spends one year in training under the supervision of the director. Following this *Seminar-*

¹ For text of "rules of the examination for the position of teacher in the higher schools of Prussia (September 12, 1898)" (p. 34) and "regulations for the practical training of candidates for the position of teacher in higher schools in Prussia" (March 15, 1908) (p. 61), see John F. Brown, "The Training of Teachers for Secondary Schools in Germany and the United States," Macmillan, 1911.

jahr comes his *Probejahr*, during which he gives class instruction under the guidance of the experienced teachers. Only if this service is satisfactory does he proceed to a regular appointment. There are no women teachers in the boys' schools, but in the girls' schools three fourths of the teachers are women, whose training, however, has been comparatively limited. Under recent regulations, women applicants must, by 1913, have had university training, though no provision has yet been made for the *Seminarjahr* and *Probejahr*.

France

By the law of 1879, every department was required to maintain two normal schools, one for men and one for women, for the training of primary teachers. There are over 170 of these schools with 11,000 students. The schools are usually situated in the chief town of the department, and furnish somewhat less than two thirds of all the teachers. Students enter only upon competitive examination and must be between sixteen and eighteen years of age, hold the *brevet élémentaire*, a certificate secured upon examination, agree to remain in the public school

service for ten years, and be in sound physical condition. The institutions are boarding schools, and the students are practically supported by the State. The curriculum extends over three years and is uniform throughout all the schools.¹

Teachers for service in secondary schools are trained in the Higher Normal School, a professional school of the University of Paris. The number of students admitted is limited, and admission is upon written and oral examination open only to holders of the bachelor's degree between the ages of eighteen and twenty-four. The course extends over three years and includes practice teaching. Upon its completion the student becomes a candidate for the degree of *agrégé*, granted only upon rigid examination by the department of education. This degree secured, the holder is entitled to teach in the higher grades of the *lycées* or *colleges*.

England

Elementary school teachers are trained either by a sort of apprentice system or in training

¹ For full account of these schools see Farrington, "Primary Schools," p. 140 *et seq.*

colleges. Under the former method, pupils having attended a secondary school up to the age of sixteen are given practical training either as pupil-teachers or as bursars. As a pupil-teacher the student receives training in teaching in a public elementary school for one year, together with certain theoretical instruction satisfying regulations of the Board of Education. As a bursar, he attends a secondary school, with the financial assistance of a government grant, for one year, at the end of which he may become a student-teacher or enter a training college. In either case, applicants must be of good character and health, and sign a declaration of intention to become an elementary school teacher.

The training colleges are grouped into (1) separate institutions devoted solely to the training of teachers, (2) educational departments of universities, and (3) departments of other higher grade institutions. Some of the training colleges are "residential" and some "day-training." They are supported by means of grants, tuition fees, and donations. Admission is given, on examination, to applicants seventeen years of age, of good health, who agree to teach for a stated

term of years. The course is normally of two years.¹

The training of secondary school teachers is but meagerly organized. It is only since 1908 that the Board of Education has made grants to institutions training secondary teachers. The universities grant diplomas in teaching upon examination to students who have completed a post-graduate year in an educational course of professional studies and practice teaching.

¹ For full description, with bibliography, see Sandiford, *op. cit.*

CHAPTER XXV

THE STATUS OF THE TEACHER

"A Prayer for all Teachers"

"We implore thy blessing, O God, on all the men and women who teach the children and youth of our nation, for they are the potent friends and helpers of our homes. Into their hands we daily commit the dearest that we have, and as they make our children, so shall future years see them. Grant them an abiding consciousness that they are coworkers, with thee, thou great teacher of humanity, and that thou hast charged them with the holy duty of bringing forth from the budding life of the young the mysterious stores of character and ability which thou hast hidden in them. Teach them to reverence the young lives, clean and plastic, which have newly come from thee, and to realize that generations still unborn shall rue their sloth or rise to higher levels through their wisdom and faithfulness. Gird them for their task with a double measure of thy patience and tranquillity, with a great fatherly and motherly love for the young, and with special tenderness for the backward and afflicted. Save them from physical exhaustion, from loneliness and discouragement, from the numbness of routine, and from all bitterness of heart.

"We bless thee for the free and noble spirit that is breathing with quickening power upon the educational life of our day, and for the men and women of large mind and loving heart who have made that spirit our common possession by their teaching and example. But grant that a higher obedience and self-restraint may grow in the new atmosphere of freedom.

We remember with gratitude to thee the godly teachers of our own youth who won our hearts to higher purposes by the sacred contagion of their life. May the strength and beauty of Christlike service still be plainly wrought in the lives of their successors, that our children may not want for strong models of devout manhood on whom their characters can be moulded.

“Do thou reward thy servants with a glad sense of their own eternal worth as teachers of the race, and in the heat of the day do thou show them the spring by the wayside that flows from the eternal silence of God and gives new light to the eyes of all who drink of it.” — WALTER RAUSCHENBUSCH, “For God and the People; Prayers of the Social Awakening,” p. 83.

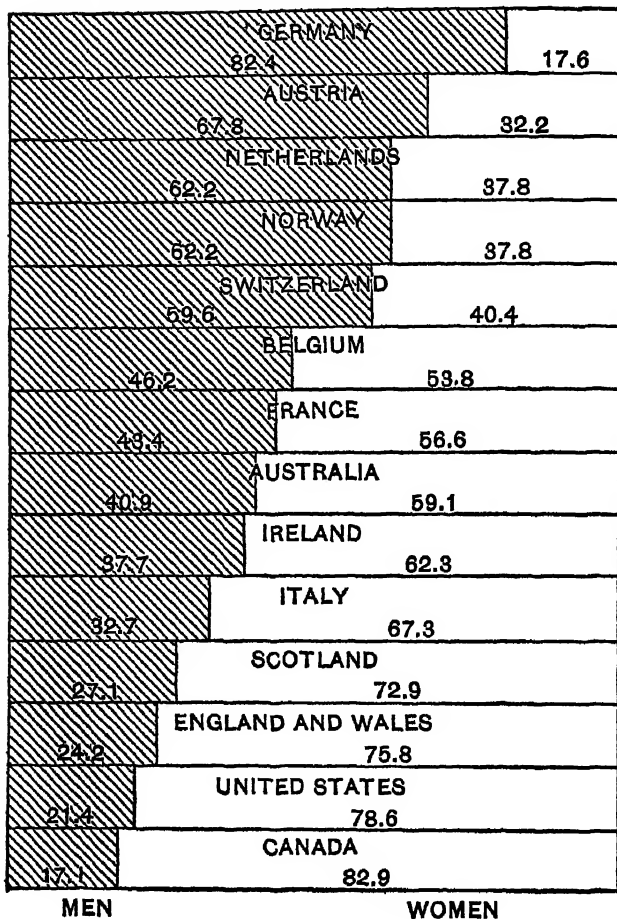
AND, finally, what of the position of the teacher? How does his State reward him, and in what esteem does it hold him? The interest of the State in its teachers is only an indirect one. It can manifest toward them no special attitude except that based upon the one vital interest which the school system exists to further—the interest of the pupils. That the pupils’ interest demands the service of trained and properly remunerated teachers is clear. We have sketched rapidly the attempts made toward the professional training of the teacher; it remains to appraise the status of the teacher in service.

In the elementary schools, the number of teachers currently reported is as follows : —

	MEN	WOMEN	TOTAL
Austria	65,740	31,279	97,019
Belgium	—	—	20,330
France	66,045	85,869	151,914
Germany	137,213	29,384	166,597
Great Britain and Ireland :			
England and Wales	41,664	130,423	172,087
Scotland	5,370	14,478	19,848
Ireland	5,735	9,509	15,244
Greece	—	—	4,346
Hungary	—	—	43,203
Italy	21,779	44,858	66,637
Netherlands	15,867	9,655	25,522
Norway	4,951	3,013	7,964
Russia	—	—	170,894
Sweden	—	—	19,925
Switzerland	8,781	5,905	14,686
Japan	—	—	122,038
Australia	—	—	20,287
Canada	—	—	34,434
Argentine	—	—	18,571
Chili	—	—	4,729
Peru	—	—	3,400
United States	108,300	398,153	506,453

It is of interest to note the extremes of policy as to the employment of men and of women teachers, the schools of Germany showing a great preponderance of men and those of Canada an equal preponderance of women.

PERCENTAGE OF MEN AND OF WOMEN TEACHERS



The number of women teachers seems to be steadily on the increase : —

PERCENTAGE OF MEN TEACHERS

<i>United States</i>		<i>France</i>	
1870-71	41.0	1891-92	45.1
1889-90	34.5	1906-07	43.4
1908-09	21.4		

United States

There is great variation as between one locality and another in the matter of salaries. The common school system paid its men at the last report a monthly wage averaging \$63.39, its women, \$50.08; in all, an average of \$57. By divisions the average was : —

North Atlantic	\$72.41
South Atlantic	42.19
South Central	47.87
North Central	55.47
Western	59.27

California led the States, with \$93.84; New York paid \$86.60; Nevada, \$81.68; New Jersey, \$75.22. At the other extreme were North Carolina, \$33.20; Mississippi, \$35.86; Vermont, \$35.87; Maine, \$36.12; Kentucky, \$39.37; Virginia, \$39.57. A very few States have enacted laws fixing certain

salary minima, among them Maryland, North Dakota, Ohio, Pennsylvania, and West Virginia.

Salaries in the cities are, of course, much larger than those of rural teachers. According to the report of the National Educational Association's committee, the men teachers in the high schools average \$1303 and the women \$903, or a general average of \$1046, the extremes being for cities of 1,000,000 population, men, \$1886; women, \$1387; general, \$1615, and for cities of 8000 to 10,000, men, \$740; women, \$622; general, \$650. For the elementary schools the figures are:—

	MEN	WOMEN	GENERAL
Cities of 1,000,000	\$1443	\$882	\$906
Cities of 8000-10,000 . . .	448	443	446
All cities 8000 and upward . .	1161	650	661

In contrast with this, Dr. Foght claims that "we pay rural teachers throughout the United States on an average less than \$300 per annum."¹

The salaries of college and university professors do not run much above those paid to high school teachers in the largest cities. President Thwing

¹ *Op. cit.*, p. 100.

places \$2000 as the average of the "most highly paid" and \$1500 as that of the other professors. "Two or three colleges are paying to a few teachers salaries of \$7000, and perhaps ten colleges are paying \$4000 at least. The present tendency is toward an increase of the highest salaries and toward a decrease of the stipend of new instructors." ¹

Pension funds are sustained in some cities. Few States have legislated in this direction, though New York and New Jersey have laws state-wide in their application.² In practically every case the funds are maintained by the assistance of the teachers who contribute a percentage of their salaries. Where tested, as in Ohio and Minnesota, involuntary contributions have been declared unconstitutional. The Carnegie Foundation for the advancement of teaching controls the income of \$15,000,000 and pensions the professors of certain public and private colleges and universities which meet a stipulated

¹ "College Administration," p. 165.

² For summary of teachers' retirement laws in seven States and thirty-one cities of the United States, see Fourth Annual Report of the Secretary of the Board of Retirement, Department of Education, The City of New York, 1911, p. 22.

standard of excellence. Provision is also made from this fund for the widows of professors.

Germany

"Comparing relative values and differences in purchasing power of money, the elementary school teacher receives a higher remuneration for his service than his colleagues in England, France, or America."¹ Each State fixes a minimum schedule to which the local authorities add such amounts as local conditions warrant and demand. The schedules of the leading States provide:—

STATES	SALARIES IN FIRST YEAR OF SERVICE		HIGHEST SALARIES PAID AFTER STATED YEARS OF SERVICE		
	<i>Marks</i>		<i>Marks</i>		<i>Years</i>
Prussia	1120	\$266.50	3300	\$785.40	31
Bavaria	800	190.40	2800	666.40	34
Saxony	900	214.20	3000	714.00	24
Württemberg	1200	285.60	2600	618.80	29
Hamburg	1600	380.80	4600	1094.80	25

There are also comprehensive pension systems. In Prussia, a teacher, if incapacitated, may retire on one third salary. Each further year of service adds one sixtieth of the annual salary to

¹ Kandel, *op. cit.*, p. 91.

the amount of the annuity, until the maximum of three fourths is reached. Provision is also made for the widows and orphans of deceased teachers, the annuity ranging from \$75 to \$875.

As to the secondary schools, the teacher receives no salary during either his *Seminarjahr* or his *Probejahr*. His first appointment is as a *Hilfslehrer*, in which position he remains until there is a vacancy for a definite appointment as *Oberlehrer*. The Prussian schedule for *Oberlehrer* is:—

Year						
1	.	.	.	.	.	\$622.60
3	.	.	.	.	.	809.20
6	.	.	.	.	.	975.80
9	.	.	.	.	.	1118.60
12	.	.	.	.	.	1285.20
15	.	.	.	.	.	1428.00
18	.	.	.	.	.	1570.80
21	.	.	.	.	.	1713.60

The schedules in Bavaria and Saxony are fully equal to these; those in Würtemberg are somewhat lower. In all cases, rent allowance of from \$70 to \$300 is made. Legally definite pensions are provided in nearly all the States for incapacity after ten years, up to compulsory retirement at the age of 65 or 70. In some cases, it is pos-

sible to get an annuity equal to the salary at the time of retirement, though the usual maximum is about 80 per cent of such salary. Widows and orphans are also provided for. In Würtemberg and one or two other States a deduction of 2 or 3 per cent is made from salaries for the benefit of the retirement fund, but the practice in the other States is to the contrary.

As to the salaries of university professors, there is no schedule, and the incomes of the individuals vary widely, depending upon rank, courses given, etc., and ranging from three or four hundred to ten or twelve thousand dollars. "Germany offers exceptional payment to brilliant teachers of staple university subjects which are indispensable to large groups of students, gives generous pecuniary rewards to successful investigators in applied science, chemical, physical, or biological, and confers valued titles and decorations on her leading scholars in all departments." ¹

France

In France, the salaries of all teachers are paid from the national treasury in accordance with the following schedule: —

¹ Eliot, *op. cit.*, p. 98.

CLASS	MALE TEACHERS		FEMALE TEACHERS	
	French Currency	United States Currency	French Currency	United States Currency
	<i>Francs</i>		<i>Francs</i>	
Probationers	1100	\$220	1100	\$220
Fifth	1200	240	1200	240
Fourth	1500	300	1400	280
Third	1800	360	1600	320
Second	2000	400	1800	360
First	2200	440	2000	400

For promotion from the fifth to the fourth grade and from the fourth to the third the required term of service is five years; from the third to the second, six years, the candidates being advanced in the order of seniority (laws of March 31 and December 30, 1903).

In addition to the salaries provided by the State, every commune is required by law to provide residence for the head teacher of its public schools (in the smaller communes an assistant teacher, if there is one, is generally the wife or sister of the principal), or its money equivalent, and a commune may increase the salary. Outside of the large cities, however, the local increase of salaries is seldom granted without the requirement of other teaching.

The salaries in the higher primary schools begin with a minimum of 2000 francs (\$400) in the fifth class, and rise by successive increments of 300 francs to the third class, for which the successive increases are 200 francs each, so that teachers of the highest or first class receive 3000 francs (\$600).

Teachers contribute 5 per cent of their salaries to a pension fund and may demand retirement at the age of fifty-five after twenty-five years' service. The annuity must be at least \$120 for men and \$100 for women.

In the secondary schools the teaching staff is divided into grades based upon qualifications, experience, and teaching ability, and the salary schedule is made up accordingly. There are, in consequence, six salary classes, and teachers are promoted from one class to the next at terms varying from two to five years. The shortest time in which a teacher may pass from the sixth, the lowest, grade to the first is nineteen years. In actual practice, the average teacher takes some five or six years more than this to reach his maximum.

SCHEDULE FOR SEINE AND VERSAILLES

IN DOLLARS

CLASS	6	5	4	3	2	1
<i>In lycées :</i>						
<i>Professeurs agrégé</i>	1100	1200	1300	1400	1500	1600
<i>Professeurs chargés de cours . . .</i>	1000	1060	1120	1180	1240	1300
<i>Professeurs de classes élémentaire .</i>	700	780	860	940	1020	1100
<i>Repetiteurs¹</i>	600	640	680	720	760	840
<i>Surveillants, first order² . . .</i>	760	820	880	960	1040	1120
<i>In collèges</i>						
<i>First order</i>	600	680	760	840	920	1000
<i>Second order</i>	520	580	640	700	760	820

¹ Supervise and help boys during hours of preparation.² Maintain discipline outside the classrooms.

Every holder of the *agrégé* receives \$100 additional to the foregoing. Women in the lycées are paid from \$400 to \$840.

All teachers in the State schools are entitled to pensions on account of age and length of service, or of physical or mental disability, or of infirmities resulting "from exercise of function." There are, too, under certain conditions, pensions to widows and orphans. There is a 5 per cent deduction on all salaries. No pension may exceed \$1200.

England

In England, salaries are usually fixed by local authorities in accordance with a schedule. In London, these salaries run in twelve years from \$500 to \$1000 for men and \$450 to \$750 for women. In other large cities the amounts are somewhat smaller. The salary of men head teachers in some higher elementary schools reaches \$1600.

As to teachers in the secondary schools it has been said that their salaries "vary from that of a respectable housemaid to that of a bishop or premier." Schedules are infrequent: \$600 is a fair estimate of the average beginning salary for men and the annual increment rarely exceeds \$50.

As far back as 1840, Great Britain devised a scheme of pensioning teachers in elementary schools, but then discontinued and later partially revived it. In 1899, legislation was enacted enabling teachers to contribute to a retirement fund and to receive disablement and superannuation allowances, these amounting in some cases to \$320 for men and \$210 for women.

Such in brief is the financial status of the teacher in the four leading educational nations. It is, however, unsatisfactory to make comparisons of salaries as between countries. The cost of living varies widely, but more significant is the variation in the standard of living. It is not so much that some things—especially things one doesn't much want—cost less in Germany than they do in America, as that a given scale of necessary expenses will in Germany maintain a higher social position than in America. The true status of the teacher can be determined only when we take into consideration the purchasing power of his money together with at least two other factors, tenure and official and social recognition.

In the United States, it has been said, the teacher as such has no status.¹ He is judged more decidedly upon his scholarship, culture, and personal force. To be a teacher counts for little one way or the other; to be a man counts for much, whatever may be the particular form of service he renders his fellow-men.

¹ "It is only Western civilization—it is almost only our much-lauded Anglo-Saxon civilization—that denies to the teacher a station in life befitting his importance as a social servant."—William C. Bagley, "Craftsmanship in Teaching," Macmillan, 1911, p. 89.

Germany is the nation that stands forth as the leader in its official and practical recognition of the service of the teacher. There teaching is a clearly recognized and well-honored profession. Only the trained teacher is tolerated; the State itself certifies him and gives him a fixed official status. Once qualifying, he is sure of appointment, and once appointed he is sure of permanent employment, and can be dismissed only by judicial disciplinary decision. In short, the teacher is a trained State officer and as such is accorded respect. Especially so is this true of the teachers of the secondary schools. Their status is well abreast that of the judge or doctor or clergyman. Dean Russell sums it up in these words: "On the whole, it must be conceded that the German teacher is tolerably well provided for. His income is small; but in comparison with members of other learned professions, he is not far in the rear. He can live as his neighbors do, enjoy cultivated society, rear a large family, send his sons to the university, fit his daughters to be as cheerful, industrious, and frugal as their mother, and be assured of a competency in his old age."¹

¹ *Op. cit.*, p. 386.

Likewise in France is the teacher a State officer. Says Dr. Farrington of the elementary school teacher: "The teacher's tenure of office is practically assured as long as he chooses to continue in active work, and he is sure that he will not be turned out simply to make way for a younger man. Besides, too, wherever he may be placed, being really a government officer, he is often upheld by the thought that he has all the moral support of a great nation to sustain him. He is safe from all political influence whatsoever, and is dependent upon no man's petty whim."¹ And of the secondary school teacher: "When the accounts have been cast, it must be admitted that the lot of the French regular secondary teacher is far from unsatisfactory. While apparently his salary is poor compared with many of those paid in America, relatively he is much better paid. He has labored hard to reach his position, but he has a government appointment which carries respect with it. His tenure is secure, promotion is slow but reasonably certain, and at retirement his pension is assured. Furthermore, he is able to live in the community comfortably on an equality with

¹ "Primary School System," p. 69.

those of his neighbors whose tastes are similar to his own."¹

Turning to England, a different picture presents itself. It may be better understood when the following table is considered:—

NUMBER OF TEACHERS IN ENGLAND AND WALES, 1907-1908

CLASS OF TEACHERS	MEN	WOMEN	TOTAL
Certificated :			
Trained	22,024	26,752	48,776
Untrained	9,181	33,171	42,352
Uncertificated	5,320	38,946	44,266
Others	5,714	36,520	42,234
Total	42,239	135,389	177,628

When the preponderance of untrained and uncertificated teachers and "others" is noted, it is scarcely to be wondered that their status is not attractive. Conditions are somewhat better in the secondary schools, but even there, lack of satisfactory tenure and salaries none too beneficent force many teachers to leave the profession after a few years' experience.

One generalization we may safely venture: the trend everywhere is toward an advance in the remuneration of the teacher. And this is still

¹ "Secondary Schools," p. 122.

true if we give to the word *remuneration* its broader and nobler definition. Happily, we have moved a long way from the days of ancient Greece and Rome, where teachers frequently were slaves and held in low esteem. As society becomes more and more conscious of its own imperative need of him, and above all, as he proves himself, so will the teacher come into his own.

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